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BRIGHAM YOUNG UNIVERSITY BULLETIN

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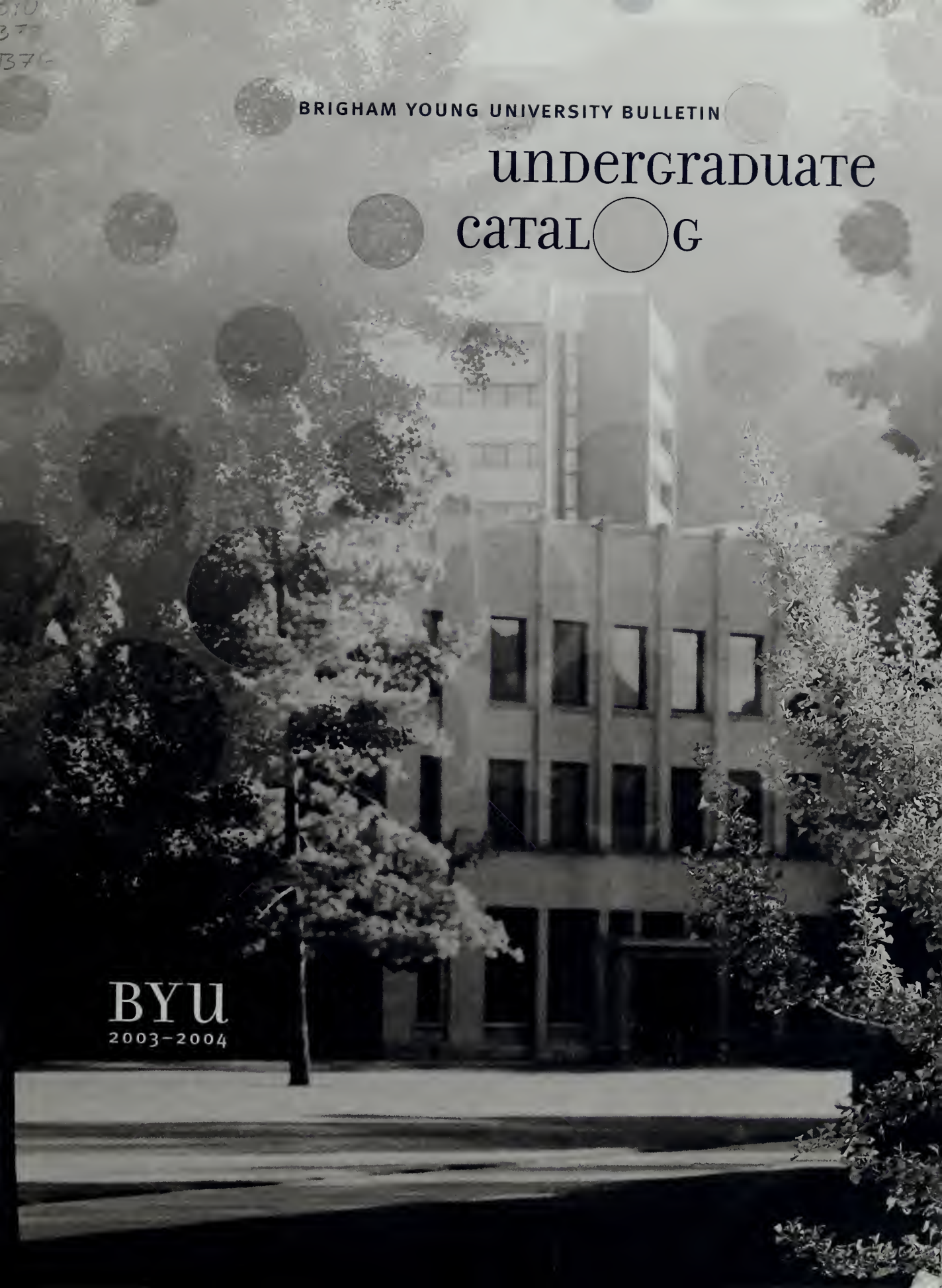

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BRIGHAM YOUNG UNIVERSITY BULLETIN

2003–2004 UNDERGRADUATE CATALOG

USPS No. 065-120

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Directory

Please refer to last page for a campus map and key to building abbreviations.

Information: Campus directory assistance, (801) 378-INFO (4636).

ADVISEMENT CENTERS:

University, 2500 WSC, Provo, UT 84602-7906, (801) 422-3826 (Karen Evans, Coordinator).

College of Biology and Agriculture, 380 WIDB, Provo, UT 84602-5189, (801) 422-3042 (Audrey L. Megerian, Supervisor).

College of Engineering and Technology, 264 CB, Provo, UT 84602-4101, (801) 422-4325 (Pamela O. Williamson, Supervisor).

College of Family, Home, and Social Sciences, 151 SWKT, Provo, UT 84602-5535, (801) 422-3541 (Larry K. Taylor, Supervisor).

College of Fine Arts and Communications, D-444 HFAC, Provo, UT 84602-6333, (801) 422-3537 (Brenda Butterfield, Supervisor).

College of Health and Human Performance, 203 RB, Provo, UT 84602-2113, (801) 422-3638 (Shirlene Hindmarsh, Supervisor).

College of Humanities, 3078 JKHB, Provo, UT 84602-6120, (801) 422-4789 (Mary Anne Rich, Supervisor).

College of Nursing, 551 SWKT, Provo, UT 84602-5544, (801) 422-4173 (Linda Stevens, Supervisor).

College of Physical and Mathematical Sciences, N-179 ESC, Provo, UT 84602-4605, (801) 422-6270 (Merle T. White, Supervisor).

David O. McKay School of Education, 120 MCKB, Provo, UT 84602-5096, (801) 422-3426 (Linda Parker, Supervisor).

International and Area Studies, 273 HRCB, Provo, UT 84602-4526, (801) 422-3548 (Arlene Pritchard, Supervisor).

Marriott School of Management, 460 TNRB, Provo, UT 84602-3113, (801) 422-4285 (Eldon Bott, Supervisor).

Academic Advisement: B-238 ASB, Provo, UT 84602-1222, (801) 422-3641.

Academic Support: 2500 WSC, Provo, UT 84602-7906, (801) 422-2723.

Admission/Readmission: A-153 ASB, Provo, UT 84602-1111, (801) 422-2507.

Alumni Association: 133 ALUM, Provo, UT 84602-2400, (801) 422-4663.

Campus Visits and Tours: Public Affairs and Guest Relations, VCTR, Provo, UT 84602-3220, (801) 422-4431.

Counseling and Career Center: 2510 WSC, Provo, UT 84602-7906, (801) 422-4007.

Discontinuance Office: B-150 ASB, Provo, UT 84602-1112, (801) 422-7705.

Employee Relations Office: D-276 ASB, Provo, UT 84602-1220, (801) 422-9065.

Employment Services: D-70 ASB, Provo, UT 84602-1003, (801) 422-3563.

Equal Opportunity Office: D-282 ASB, Provo, UT 84602-1220, (801) 422-5895.

Evening Classes: 122 HCEB, Provo, UT 84602-1513, (801) 378-2872.

Financial Aid: A-41 ASB, Provo, UT 84602-1009, (801) 378-4104.

Freshman Hotline/Orientation: 120 HRCB, Provo, UT 84602, (800) 290-BYU1 or e-mail: frorientation@byu.edu

Freshman Year Office: 120 HRCB, Provo, UT 84602, (801) 422-4243.

General Education: 302 MSRB, Provo, UT 84602-2600, (801) 422-3038.

Graduate Studies, Office of: B-356 ASB, Provo, UT 84602-1339, (801) 422-4091.

Graduation Evaluation: B-238 ASB, Provo, UT 84602-1222, (801) 422-3641.

Health Center, Student: 2300 SHC, Provo, UT 84602-4800, (801) 378-2771.

Honor Code Office: 4440 WSC, Provo, UT 84602-7902, (801) 422-2847.

Honors Program: 102-A MSRB, Provo, UT 84602-2600, (801) 422-5497.

Housing: 100 SASB, Provo, UT 84602-1820, (801) 378-2611.

Independent Study: 206 HCEB, Provo, UT 84602-1514, (801) 378-2868.

International Services: 1351 WSC, Provo, UT 84602-7917, (801) 422-2695.

Library: 3226 HBLL, Provo, UT 84602-6800, (801) 422-2926.

Multicultural Student Services: 1320 WSC, Provo, UT 84602-7918, (801) 422-3065.

Ombudsman: 3438 WSC, Provo, UT 84602-7908, (801) 422-4132.

Records: B-150 ASB, Provo, UT 84602-1114, (801) 378-2631.

Registration: B-130 ASB, Provo, UT 84602-1112, (801) 422-2824.

Scholarships and Awards: Financial Aid, A-41 ASB, Provo, UT 84602-1009, (801) 378-4104.

Traffic/Parking Division: 700 East 1430 North, Provo, UT 84602-0300, (801) 378-3906.

Transfer Evaluation: B-238 ASB, Provo, UT 84602-1222, (801) 422-3641.

Tuition and Fees: Cashiers' Office, D-155 ASB, Provo, UT 84602-1128, (801) 422-7808.

University Accessibility Center: 1520 WSC, Provo, UT 84602-7920, (801) 422-2767.

Veterans Support: B-150 ASB, Provo, UT 84602-1113, (801) 422-2768.

Women's Services and Resources: 1526 WSC, Provo, UT 84602-7919, (801) 422-4877.

Obtaining Catalogs

To order a copy of either the BYU Undergraduate Catalog or the BYU Graduate Catalog (hard copy or CD version), please contact Mail Services, Brigham Young University, 296 UPB, Provo, UT 84602-1930, telephone (801) 378-3658. Within the United States, a BYU Undergraduate Catalog mailed second class costs $17* and mailed first class costs $19.50*. A BYU Graduate Catalog mailed second class costs $11* and mailed first class costs $13.50*. These prices include postage and handling. VISA, MasterCard, check, or money order is accepted in payment. On campus, the BYU Undergraduate Catalog can be purchased at the BYU Bookstore for $9.95 each and the BYU Graduate Catalog for $6 each. The undergraduate and graduate catalogs, as well as the class schedules, are also available on the Web at *http://ar.byu.edu/catalog/* or through BYU's homepage, *http://www.byu.edu*, under publications.

*Subject to change.

Statement of Nondiscrimination

Admission to Brigham Young University is nondiscriminatory. The university admits persons regardless of race, color, national origin, religion, age, gender, veteran status, or disability who meet university and department academic requirements and agree to abide by the university's standards of conduct and behavior.

Reservation of Right to Change Courses

The university makes every reasonable effort to provide accurate information in the contents of this catalog but reserves the right to make changes at any time without prior notice. The university reserves the right to change or discontinue graduation requirements, department majors, individual courses, instructors, and all other aspects of university operations. In the event the university determines to make changes in curriculum, it will post these changes as soon as practical at *http://ar.byu.edu/catalog/ugrad_catalog.html*. It is recommended that students regularly check this site for possible changes.

If colleges or majors are discontinued, or if substantial changes in requirements for degrees are made, the university will endeavor to allow students disadvantaged by the change to continue under existing programs and requirements. As a general rule, these types of substantial changes will only be made effective each fall semester.

The university may place a hold on a student's registration privileges if the student neglects academic work or makes unsatisfactory progress toward graduation.

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Using This Catalog

Semester System

Courses of study at Brigham Young University are offered, and credit for satisfactory completion is granted, on a semester basis.

Course Numbering System

A course's level of instruction is shown by the number assigned to it:

Course Number	Type of Course
1 to 99	Preparatory and remedial (noncredit)
100 to 299	Lower-division
300 to 499	Upper-division
500 to 599	Advanced undergraduate or graduate
600 to 799	Graduate

Credit-Hour Designations

One semester hour of credit represents a minimum of one hour of instruction per week in a semester or two hours of instruction per week in a term (e.g., a three-hour class will meet at least three hours per week). The three-number code that appears in parentheses immediately after each course title has the following significance:

First number	Semester hours of credit
Second number	Class hours of lecture, recitation, or seminar meeting per week
Third number	Laboratory hours required per week or hours of field study or individual research per week, beyond the hours shown in the second number

Abbreviations and Symbols

Course Listings

The following abbreviations and symbols are used in the course listings:

Arr.	Credit, class, or laboratory hours arranged
ea.	Credit-hour designation applies to each registration
H	Designates an Honors course that carries GE credit
M	Majors-only course
R	Designates a course that may be repeated for credit. Two R courses with the same number on a transcript are treated as two independent courses. An R course cannot be repeated to raise the grade received; all grades will be counted because it is assumed that the subject matter varies from time to time.

When Courses Are Offered

The following abbreviations are used following the credit hour designation on some courses to indicate when the course is offered:

F	Fall semester
W	Winter semester
Sp	Spring term
Su	Summer term
Alt. sem.	Alternate semester
Alt. term	Alternate term
Alt. yr.	Alternate year
Even yr.	Even year
Odd yr.	Odd year
1st blk.	First block
2d blk.	Second block
On dem.	On demand

Departments

Accountancy and Information Systems, School of	
Accounting	Acc
Information Systems	ISys
Aerospace Studies	Aeros
American Heritage	AHtg
American Studies	AmSt
Anthropology	Anthr
Audiology and Speech-Language Pathology	ASLP
Biology	Biol
Business Management	BusM
Managerial Economics	ManEc
Chemical Engineering	ChEn
Chemistry and Biochemistry	Chem
Civil and Environmental Engineering	CEEn
Communications	Comms
Computer Science	CS
Computing and Information	CpIn
Counseling Psychology and Special Education	CPSE
Dance	Dance
Economics	Econ
Educational Leadership and Foundations	EdLF
Electrical and Computer Engineering	ECEn
Engineering and Technology Education	EngT
English	Engl
Family Life, School of	
Family Life	FamLf
Family Life and Home Economics Education	FL&HE
Marriage and Family Therapy	MFT
Marriage, Family, and Human Development	MFHD
Fine Arts	FnArt
General Education	GE
Geography	Geog
Geology	Geol
Health/Physical Education	HEPE
Health Science	Hlth
History	Hist
Honors Program	HonP
Humanities	Hum
Classics	Clscs
Classical Civilization	ClCv
Comparative Literature	CmLit
Instructional Psychology and Technology	IP&T
Integrative Biology	InBio
International and Area Studies	IAS
Asian Studies	Asian
European Studies	Europ
International Relations	IR
Latin American Studies	LtAm
Middle East Studies/Arabic	MESA

Languages	
Afrikaans	Afrik
Arabic	Arab
Bulgarian	Bulgn
Cantonese	Cant
Chinese	Chin
Czech	Czech
Danish	Dansh
Dutch	Dutch
Estonian	Eston
Finnish	Finn
French	Fren
German	Germ
Greek	Greek
Greek Modern	GrkM
Hebrew	Heb
Hungarian	Hung
Icelandic	Iclnd
Italian	Ital
Japanese	Japan
Korean	Korea
Latin	Latin
Latvian	Latvi
Lithuanian	Lithu
Near Eastern Languages	NeLg
Norwegian	Norwe
Polish	Polsh
Portuguese	Port
Romanian	Rom
Russian	Russ
Scandinavian	Scand
Serbo-Croatian	SrbCr
Slovenian	Sln
Spanish	Span
Swedish	Swed
Ukrainian	Ukrai
Welsh	Welsh
Language Studies, Center for	FLang
Law School	Law
Linguistics	Ling
American Sign Language	ASL
Computers and the Humanities	CHum
English as a Second Language	ESL
English Language	ELang
Mathematics	Math
Mathematics Education	MthEd
Mechanical Engineering	MeEn
Microbiology and Molecular Biology	MMBio
Military Science	MilS
Music	Music
Native American Studies	NAS
Neuroscience Center	Neuro
Nursing	Nurs
Nutrition, Dietetics, and Food Science	NDFS
Organizational Leadership and Strategy	OrgB
Management Communication	MCom
Philosophy	Phil
Physical Education	PE
Physical Science	PhyS
Physics and Astronomy	Phscs
Physiology and Developmental Biology	PDBio
Plant and Animal Sciences	PAS
Political Science	PlSc
Psychology	Psych
Public Management, Romney Institute of	PMgt
Recreation Management and Youth Leadership	RMYL
Religious Education	
Ancient Scripture	RelA
Church History and Doctrine	RelC
Religious Education	RelE
Social Work, School of	SocW
Sociology	Soc
Statistics	Stat
Student Development	StDev
Teacher Education	
Early Childhood Education	ECE
Elementary Education	ElEd
Secondary Education	ScEd
Technology, School of	Tech
Construction Management	CM
Facilities Management	FM
Industrial Design	InDes
Information Technology	IT
Manufacturing Engineering Technology	Mfg
Technology Teacher Education	TTE
Theatre and Media Arts	TMA
Visual Arts	
Art History and Curatorial Studies	ArtHC
Visual Arts Animation	VAAnm
Visual Arts Core	VA
Visual Arts Design	VADes
Visual Arts Education	VAEdu
Visual Arts Graphic Design	VAGD
Visual Arts Illustration	VAIll
Visual Arts Photography	VAPho
Visual Arts Studio	VAStu
Women's Studies	WS

Interdisciplinary Courses

Interdisciplinary courses are taught in several areas.

500-Level Graduate Courses

Available to advanced undergraduates.

University Calendar

The annual calendar at BYU includes two semesters and two terms. Fall semester 2003 begins the first Tuesday in September and ends before the Christmas holidays. Winter semester is from early January to late April. Spring and summer terms begin in late April and late June, respectively. Registering for spring and summer terms allows students to accelerate their progress in many degree programs.

Fall Semester 2003

W	Jan 1, 2003	Departmental application deadlines for fall semester 2003 entry to graduate study may be as early as January 1, 2003. For specific program and department deadlines and requirements, refer to the department listing in the 2003–2004 BYU Graduate Catalog or check with the department.
W	Jan 15	Last day new freshmen may apply to be considered for the Gordon B. Hinckley Scholarship
Sa	Feb 15	Last day new freshmen may submit undergraduate applications for spring term 2003, summer term 2003, or fall semester 2003 admission, academic scholarship, and talent awards
Sa	Mar 1	Last day continuing undergraduate students may apply for scholarships for fall semester 2003 or winter semester 2004
Sa	Mar 15	Suggested due date for Continuing Student Ecclesiastical Endorsement to avoid registration delays
Sa	Mar 15	Last day transfer and former BYU students (including international students) may submit undergraduate admission/scholarship applications for spring term 2003, summer term 2003, or fall semester 2003
Sa	Mar 15	Last day to submit a continuing student enrollment and scholarship deferment application for spring term 2003, summer term 2003, or fall semester 2003
M	Jun 2	Financial aid priority processing date for Pell Grants, Stafford Loans, and BYU loans for fall semester 2003, winter semester 2004
F	Aug 15	Last day to apply for BYU short-term loans to pay fall semester 2003 tuition by the deadline
T	Aug 19	First day summer term 2003 grades are available
MTW	Aug 25–27	Annual University Conference
ThFSa	Aug 28–30	Orientation
M	Sep 1	Labor Day holiday
M	Sep 1	Last day to officially discontinue enrollment without a tuition charge
T	Sep 2	Classes begin
M	Sep 15	Last day for undergraduates to apply and pay fee for December 2003 graduation
M	Sep 15	Last day to late register or add classes
M	Sep 15	Last day to pay tuition
M	Sep 15	Last day to drop a class without a W (official withdrawal) appearing on the transcript
Th	Sep 18	Last day to drop a first block class for academic reasons
F	Sep 26	Last day graduate students may apply for December 2003 graduation
W	Oct 1	Last day new freshmen, transfer, and former BYU students (including international students) may submit undergraduate admission/scholarship applications for winter semester 2004
W	Oct 1	Last day to submit a continuing student enrollment and scholarship deferment application for winter semester 2004
M	Oct 6	Last day to officially discontinue from first block classes for nonacademic emergencies
M	Oct 6	Last day to drop a semester class for academic reasons
M	Oct 6	Last day to officially discontinue from the university without being graded
T	Oct 21	Last day of first block classes
W	Oct 22	Second block classes begin
W	Oct 29	Last day to add second block classes
W	Oct 29	Last day to drop a second block class without a W (official withdrawal) appearing on the transcript
F	Oct 31	Last day graduate students in dissertation, thesis, or selected project programs may schedule a final oral examination (defense of their work) and submit one copy of their work to their department for December 2003 graduation
F	Nov 7	Last day to drop a second block class for academic reasons
M	Nov 10	Last day Independent Study course work and midterms may be submitted for December 2003 graduation
F	Nov 14	Last day graduate students in dissertation, thesis, or selected project programs may have a final oral examination (defense of their work) for December 2003 graduation
M	Nov 17	Full payment due on BYU short-term loans for fall semester 2003
F	Nov 21	Last day undergraduates may submit to the Records Office all incompletes, T grades, special exams, GE challenges, military credit, official transcripts of work completed at other schools, and any other information pertaining to December 2003 graduation
F	Nov 21	Last day graduate students may submit their dissertation, thesis, or selected project to the dean of their college for December 2003 graduation
T	Nov 25	Last day to officially discontinue from the university or drop a class for nonacademic emergencies
T	Nov 25	Friday class instruction. No Tuesday classes.
W	Nov 26	No classes held
W	Nov 26	Last day Independent Study final exams may be submitted for December 2003 graduation
ThF	Nov 27–28	Thanksgiving holiday

F	Dec 5	Last day graduate students may submit final copies of their dissertation, thesis, or selected project to the library business office for binding; complete remaining degree requirements; pay fees; and submit exam results and I and T grade changes to the Office of Graduate Studies for December 2003 graduation
Th	Dec 11	Last day of class instruction
F–Sa	Dec 12–13	Reading days
M–F	Dec 15–19	Final exams
F	Dec 19	Graduation (no exercises)
T	Dec 30	Last day instructors may submit fall semester 2003 grades to the Records Office
F	Jan 2, 2004	Fall semester 2003 grades available

Winter Semester 2004

Sa	Feb 1, 2003	Departmental application deadlines for winter semester 2004 entry to graduate study may be as early as February 1, 2003. For specific program and department deadlines and requirements, refer to the department listing in the 2003–2004 BYU Graduate Catalog or check with the department.
Sa	Mar 1	Last day continuing undergraduate students may apply for scholarships for fall semester 2003 and winter semester 2004
W	Oct 1	Last day new freshmen, transfer, and former BYU students (including international students) may submit undergraduate admission/scholarship applications for winter semester 2004
W	Oct 1	Last day to submit a continuing student enrollment and scholarship deferment application for winter semester 2004
F	Oct 3	Financial aid priority deadline for Pell Grants, Stafford Loans, and BYU loans for winter semester 2004
Sa	Nov 15	Last day for undergraduates to apply and pay fee for April 2004 graduation
F	Dec 19	Last day to apply for BYU short-term loans to pay winter semester 2004 tuition by the deadline
Su	Jan 4, 2004	Last day to officially discontinue enrollment without a tuition charge.
M	Jan 5	Classes begin
Th	Jan 15	Last day new freshmen (including international students) may apply to be considered for the Gordon B. Hinckley Scholarship for fall semester 2004
F	Jan 16	Last day graduate students may apply for April 2004 graduation
F	Jan 16	Last day to late register or add classes
F	Jan 16	Last day to pay tuition
F	Jan 16	Last day to drop a class without W (official withdrawal) appearing on the transcript
M	Jan 19	Martin Luther King Day holiday
Th	Jan 22	Last day to drop a first block class for academic reasons
M	Feb 9	Last day to officially discontinue from a first block class for nonacademic emergencies
M	Feb 9	Last day to drop a semester class for academic reasons
M	Feb 9	Last day to officially discontinue from the university without being graded
Su	Feb 15	Last day new freshmen may submit undergraduate admission/scholarship applications for spring term 2004, summer term 2004, or fall semester 2004
Su	Feb 15	Last day all international students (new freshman, transfer, and former) may submit admission/scholarship applications for spring term 2004
Su	Feb 15	Last day new freshmen may submit applications for academic scholarships and for performance and talent awards for fall semester 2004
M	Feb 16	Presidents' Day holiday
T	Feb 17	Monday class instruction. No Tuesday classes
F	Feb 20	Last day graduate students in dissertation, thesis, or selected project programs may schedule a final oral examination (defense of their work) and submit one copy of their work to their department for April 2004 graduation
W	Feb 25	Last day of first block classes
Th	Feb 26	Second block classes begin
Th	Mar 4	Last day to add second block classes
Th	Mar 4	Last day to drop a second block class without a W (official withdrawal) appearing on the transcript
F	Mar 5	Last day graduate students in dissertation, thesis, or selected project programs may have a final oral examination (defense of their work) for April 2004 graduation
F	Mar 12	Last day graduate students may submit their dissertation, thesis, or selected project to the dean of their college for April 2004 graduation
M	Mar 15	Last day transfer and former BYU students (including international students) may submit undergraduate admission/scholarship applications for spring term 2004, summer term 2004, or fall semester 2004
M	Mar 15	Last day to submit a continuing student enrollment and scholarship deferment application for spring term 2004, summer term 2004, or fall semester 2004
M	Mar 15	Full payment due on BYU short-term loans for winter semester
M	Mar 15	Last day to drop a second block class for academic reasons
F	Mar 19	Last day graduate students may submit final copies of their dissertation, thesis, or selected project to the library business office for binding; complete remaining degree requirements; pay fees; and submit exam results and I and T grade changes to the Office of Graduate Studies for April 2004 graduation
Su	Mar 21	Last day Independent Study course work and midterms may be submitted for April 2004 graduation
F	Mar 26	Last day undergraduates may submit to the Records Office all incompletes, T grades, special exams, GE challenges, military credit, official transcripts of work completed at other schools, and any other information pertaining to April 2004 graduation
W	Mar 31	Last day to officially discontinue from the university or drop a class for nonacademic emergencies
Th	Apr 2	Last day Independent Study final exams may be submitted for April 2004 graduation
T	Apr 13	Last day of class instruction

WTh	Apr 14–15	Reading days
F,Sa,M–W	Apr 16,17,19–21	Final exams
Th	Apr 22	Graduation—university commencement
F	Apr 23	Graduation—college convocations
W	Apr 28	Last day instructors may submit winter semester 2004 grades to the Records Office
F	Apr 30	Winter semester 2004 grades available

Spring Term 2004

M	Sept 15, 2003	Departmental application deadlines for spring term 2004 entry to graduate study may be as early as September 15, 2003. For specific program and department deadlines and requirements, refer to the department listing in the 2003–2004 BYU Graduate Catalog or check with the department.
Th	Jan 15, 2004	Last day continuing undergraduate students may submit scholarship applications for spring or summer terms 2004
Su	Feb 15	Last day new freshmen may submit undergraduate admission/scholarship applications for spring term 2004, summer term 2004, or fall semester 2004
Su	Feb 15	Last day all international students (new freshman, transfer, and former) may submit admission/scholarship applications for spring term 2004
M	Mar 15	Last day transfer and former BYU students may submit undergraduate admission/scholarship applications for spring term 2004, summer term 2004, or fall semester 2004
M	Mar 15	Last day international transfer and former students may submit undergraduate admission/scholarship applications for spring term 2004, summer term 2004, or fall semester 2004
M	Mar 15	Last day to submit a continuing student enrollment and scholarship deferment application for spring term 2004, summer term 2004, or fall semester 2004
F	Apr 9	Last day to apply for BYU short-term loans to pay spring term tuition by the deadline
Th	Apr 15	Last day for undergraduates to apply and pay fee for August 2004 graduation
M	Apr 26	Last day to discontinue enrollment without a tuition charge
T	Apr 27	Classes begin
T	May 4	Last day to late register or add classes
T	May 4	Last day to pay tuition
T	May 4	Last day to drop a class without a W (official withdrawal) appearing on the transcript
Th	May 13	Last day to drop a class for academic reasons
Th	May 13	Last day to officially discontinue from the university without being graded
F	May 21	Last day graduate students may apply and pay fee for August 2004 graduation
M	May 31	Memorial Day holiday
T	Jun 1	Full payment due on BYU short-term loans for spring term
T	Jun 1	Last day to officially discontinue from the university or drop a class for nonacademic emergencies
M	Jun 14	Last day of class instruction
T	Jun 15	Reading day
WTh	Jun 16–17	Final exams
F	Jun 18	Last day graduate students in dissertation, thesis, or selected project programs may schedule a final oral examination (defense of their work) and submit one copy of their work to their department for August 2004 graduation
Th	Jun 24	Last day instructors may submit spring term 2004 grades to the Records Office
Sa	Jun 26	Spring term 2004 grades available
W	Jun 30	Last day federal government will accept need analysis for processing federal financial aid for 2003–2004 academic year

Summer Term 2004

M	Dec 15, 2003	Departmental application deadlines for summer term 2004 entry to graduate study may be as early as December 15, 2003. For specific program and department deadlines and requirements, refer to the department listing in the 2003–2004 BYU Graduate Catalog or check with the department.
Su	Feb 15, 2004	Last day new freshmen (including international students) may submit undergraduate admission/scholarship applications for summer term 2004 or fall semester 2004 admission
M	Mar 15	Last day transfer and former BYU students may submit undergraduate admission/scholarship applications for summer term 2004 or fall semester 2004
M	Mar 15	Last day international transfer and former students may submit undergraduate admission/scholarship applications for summer term 2004 or fall semester 2004
M	Mar 15	Last day to submit a continuing student enrollment and scholarship deferment application for summer term 2004 or fall semester 2004
Th	Apr 15	Last day for undergraduates to apply and pay fee for August 2004 graduation
F	May 21	Last day graduates may apply for August 2004 graduation
F	Jun 4	Last day to apply for BYU short-term loans to pay summer term 2004 tuition by the deadline
F	Jun 18	Last day graduate students in dissertation, thesis, or selected project programs may schedule a final oral examination (defense of their work) and submit one copy of their work to their department for August 2004 graduation
FSa	Jun 18–19	Orientation
Su	Jun 20	Last day to discontinue enrollment without a tuition charge
M	Jun 21	Classes begin
M	Jun 28	Last day to late register or add classes
M	Jun 28	Last day to pay tuition
M	Jun 28	Last day to drop a class without a W (official withdrawal) appearing on the transcript

W	Jun 30	Last day federal government will accept need analysis for processing federal financial aid for 2003–2004 academic year
F	Jul 2	Last day graduate students in dissertation, thesis, or selected project programs may have a final oral examination (defense of their work) for August 2004 graduation
M	Jul 5	Independence Day holiday
Th	Jul 8	Last day to drop a class for academic reasons
Th	Jul 8	Last day to officially discontinue from the university without being graded
F	Jul 9	Last day graduate students may submit their dissertation, thesis, or selected project to the dean of their college for August 2004 graduation
M	Jul 12	Last day Independent Study course work and midterms may be submitted for August 2004 graduation
F	Jul 16	Last day graduate students may submit final copies of their dissertation, thesis, or selected project to the library business office for binding; complete remaining degree requirements; pay fees; and submit exam results and I and T grade changes to the Office of Graduate Studies for August 2004 graduation
F	Jul 16	Last day undergraduates may submit to the Records Office all incompletes, T grades, special exams, GE challenges, military credit, official transcripts of work completed at other schools, and any other information pertaining to August 2004 graduation
F	Jul 23	Pioneer Day holiday
F	Jul 23	Last day Independent Study final exams may be submitted for August 2004 graduation
T	Jul 27	Last day to officially discontinue from the university or drop a class for nonacademic emergencies
M	Aug 2	Full payment due on BYU short-term loans for summer term 2004
M	Aug 9	Last day of class instruction
T	Aug 10	Reading day
WTh	Aug 11–12	Final exams
Th	Aug 12	Graduation—university commencement
F	Aug 13	Graduation—college convocations
Th	Aug 19	Last day instructors may submit summer term 2004 grades to the Records Office
Sa	Aug 21	Summer term 2004 grades available

The Mission of Brigham Young University

The mission of Brigham Young University—founded, supported, and guided by The Church of Jesus Christ of Latter-day Saints—is to assist individuals in their quest for perfection and eternal life. That assistance should provide a period of intensive learning in a stimulating setting where a commitment to excellence is expected and the full realization of human potential is pursued.

All instruction, programs, and services at BYU, including a wide variety of extracurricular experiences, should make their own contribution toward the balanced development of the total person. Such a broadly prepared individual will not only be capable of meeting personal challenge and change but will also bring strength to others in the tasks of home and family life, social relationships, civic duty, and service to mankind.

To succeed in this mission the university must provide an environment enlightened by living prophets and sustained by those moral virtues which characterize the life and teachings of the Son of God. In that environment these four major educational goals should prevail:

- All students at BYU should be taught the truths of the gospel of Jesus Christ. Any education is inadequate which does not emphasize that His is the only name given under heaven whereby mankind can be saved. Certainly all relationships within the BYU community should reflect devout love of God and a loving, genuine concern for the welfare of our neighbor.
- Because the gospel encourages the pursuit of all truth, students at BYU should receive a broad university education. The arts, letters, and sciences provide the core of such an education, which will help students think clearly, communicate effectively, understand important ideas in their own cultural tradition as well as that of others, and establish clear standards of intellectual integrity.
- In addition to a strong general education, students should also receive instruction in the special fields of their choice. The university cannot provide programs in all possible areas of professional or vocational work, but in those it does provide the preparation must be excellent. Students who graduate from BYU should be capable of competing with the best in their fields.
- Scholarly research and creative endeavor among both faculty and students, including those in selected graduate programs of real consequence, are essential and will be encouraged.

In meeting these objectives BYU's faculty, staff, students, and administrators should also be anxious to make their service and scholarship available to The Church of Jesus Christ of Latter-day Saints in furthering its work worldwide. In an era of limited enrollments, BYU can continue to expand its influence both by encouraging programs that are central to the Church's purposes and by making its resources available to the Church when called upon to do so.

We believe the earnest pursuit of this institutional mission can have a strong effect on the course of higher education and will greatly enlarge Brigham Young University's influence in a world we wish to improve.

—Approved by the BYU Board of Trustees
November 4, 1981

The Aims of a BYU Education

Education is the power to think clearly, the power to act well in the world's work, and the power to appreciate life.
— Brigham Young[1]

The mission of Brigham Young University is "to assist individuals in their quest for perfection and eternal life" ("The Mission Statement of Brigham Young University" [hereafter Mission Statement]). To this end, BYU seeks to develop students of faith, intellect, and character who have the skills and the desire to continue learning and to serve others throughout their lives. These are the common aims of all education at BYU. Both those who teach in the classroom and those who direct activities outside the classroom are responsible for contributing to this complete educational vision.

The statement that follows reaffirms and expands on the earlier and more general Mission Statement adopted in 1981. As the quotations under each heading suggest, this document also draws on the religious and educational teachings of the university's founding prophet, Brigham Young. Quotations within the text come from the scriptures and from the counsel of modern prophets, whose teachings about BYU lay the foundation of the university's mission.

The following four sections discuss the expected outcomes of the BYU experience. A BYU education should be (1) spiritually strengthening, (2) intellectually enlarging, and (3) character building, leading to (4) lifelong learning and service. Because BYU is a large university with a complex curriculum, the intellectual aims are presented here in somewhat greater detail than the other aims. Yet they are deliberately placed within a larger context. The sequence flows from a conscious intent to envelop BYU's intellectual aims within a more complete, even eternal, perspective that begins with spiritual knowledge and ends with knowledge applied to the practical tasks of living and serving.

Spiritually Strengthening

Brother Maeser, I want you to remember that you ought not to teach even the alphabet or the multiplication tables without the Spirit of God.
— Brigham Young[2]

The founding charge of BYU is to teach every subject with the Spirit, It is not intended "that all of the faculty should be categorically teaching religion constantly in their classes, but . . . that every . . . teacher in this institution would keep his subject matter bathed in the light and color of the restored gospel."[3]

This ideal arises from the common purpose of all education at BYU—to build testimonies of the restored gospel of Jesus Christ. A shared desire to "seek learning, even by study and also by faith" (D&C 88:118) knits BYU into a unique educational community. The students, faculty, and staff in this community possess a remarkable diversity of gifts, but they all think of themselves as brothers and sisters seeking together to master the academic disciplines while remaining mastered by the higher claims of discipleship to the Savior.

A spiritually strengthening education warms and enlightens students by the bright fire of their teachers' faith while enlarging their minds with knowledge. It also makes students responsible for developing their own testimonies by strenuous effort. Joseph Smith's words apply equally to faculty and students at BYU: "Thy mind, O man! if thou wilt lead a soul unto salvation, must stretch as high as the utmost heavens, and search into and contemplate the darkest abyss, and the broad expanse of eternity—thou must commune with God."[4] Students need not ignore difficult and important questions. Rather, they should frame their questions in prayerful, faithful ways, leading them to answers that equip them to give "a reason of the hope that is in" them (1 Peter 3:15) and to articulate honestly and thoughtfully their commitments to Christ and to his Church.

Intellectually Enlarging

Every accomplishment, every polished grace, every useful attainment in mathematics, music, and in all science and art belong to the Saints, and they should avail themselves as expeditiously as possible of the wealth of knowledge the sciences offer to every diligent and persevering scholar.
—Brigham Young[5]

The intellectual range of a BYU education is the result of an ambitious commitment to pursue truth. Members of the BYU community rigorously study academic subjects in the light of divine truth. An eternal perspective shapes not only *how* students are taught but *what* they are taught. In preparing for the bachelor's degree, students should enlarge their intellects by developing skills, breadth, and depth: (1) skills in the basic tools of learning, (2) an understanding of the broad areas of human knowledge, and (3) real competence in at least one area of concentration. Further graduate studies build on this foundation.

Undergraduate

1. Skills. BYU undergraduates should acquire the basic tools needed to learn. The essential academic learning skills are the abilities to think soundly, to communicate effectively, and to reason proficiently in quantitative terms. To these ends, a BYU bachelor's degree should lead to:

- *Sound thinking*—reasoning abilities that prepare students to understand and solve a wide variety of problems, both theoretical and practical. Such skills include the ability to keep a proper perspective when comparing the things that matter most with things of lesser import. They also include the ability to engage successfully in logical reasoning, critical analysis, moral discrimination, creative imagination, and independent thought.
- *Effective communication*—language abilities that enable students to listen, speak, read, and write well; to communicate effectively with a wide range of audiences in one's area of expertise as well as on general subjects. For many students this includes communicating in a second language.
- *Quantitative reasoning*—numerical abilities that equip students with the capacity to understand and explain the world in quantitative terms; to interpret numerical data; and to evaluate arguments that rely on quantitative information and approaches.

2. Breadth. BYU undergraduates should also understand the most important developments in human thought as represented by the broad domains of knowledge. The gospel provides the chief source of such breadth because it encompasses the most comprehensive explanation of life and the cosmos, supplying the perspective from which all other knowledge is best understood and measured. The Lord has asked his children to "become acquainted with all good books, and with languages, tongues, and people" (D&C 90:15); to understand "things both in heaven and in the earth, and under the earth; things which have been, things which are, things which must shortly come to pass; things which are at home, things which are abroad; the wars and the

perplexities of the nations . . . ; and a knowledge also of countries and of kingdoms" (D&C 88:79).

"Because the gospel encourages the pursuit of all truth, students at BYU should receive a broad university education [that will help them] understand important ideas in their own cultural tradition as well as that of others" (Mission Statement). Specifically, BYU undergraduate students should be educated in the following broad areas of human knowledge:

- *Religion*—the doctrines, the covenants, the ordinances, the standard works, and the history of the restored gospel, as well as an awareness of other religious traditions.
- *Historical perspective*—the development of human civilization, appreciation for the unique contributions of America to modern civilization, and a general historical perspective, including perspective on one's own discipline.
- *Science*—The basic concepts of the physical, biological, and social sciences, and a recognition of the power and limitations of the scientific method—preferably through laboratory or field experience.
- *Arts and letters*—lively appreciation of the artistic, literary, and intellectual achievements of human cultures—including Western culture and, ideally, non-Western as well.
- *Global awareness*—informed awareness of the peoples, cultures, languages, and nations of the world.

3. Depth. BYU undergraduates should develop competence in at least one area of concentration. Competence generally demands study in depth. Such in-depth study helps prepare students for their life's work; it also teaches them that genuine understanding of any subject requires exploring it fully. Students normally acquire such depth from their major and minor fields. BYU's religion requirement also asks all students to develop depth in scriptural studies and religion.

Depth does not result merely from taking many courses in a field. Indeed, excessive course coverage requirements may discourage rather than enhance depth. Depth comes when students realize "the effect of rigorous, coherent, and progressively more sophisticated study." Depth helps students distinguish between what is fundamental and what is only peripheral; it requires focus, provides intense concentration, and encourages a "lean and taut" degree that has a "meaningful core" and a purposefully designed structure (Memorandum to the Faculty No. 13). In addition to describing carefully structured academic majors, this description applies to well-designed BYU courses of all kinds.

The chief result of depth is competence. BYU's students should be "capable of competing with the best students in their field" (Mission Statement). Even so, undergraduate study should be targeted at entrance-level, not expert-level, abilities. The desire for depth should not lead to bachelor's degrees that try to teach students everything they will need to know after graduation. Students should be able to complete their degrees within about four years.

Undergraduate programs should prepare students to enter the world of work or to pursue further study. Often this requires educational activities that help upperclassmen culminate their studies by integrating them in a capstone project, honors thesis, senior seminar, or internship. By the time they graduate, students should grasp their discipline's essential knowledge and skills (such as mathematical reasoning, statistical analysis, computer literacy, foreign language fluency, laboratory techniques, library research, and teaching methods), and many should have participated in scholarly or creative activities that let them demonstrate their mastery.

Graduate

Building on the foundation of a strong bachelor's degree, graduate education at BYU asks for even greater competency. Graduate studies may be either academic or professional and at either the master's or doctoral level. In all cases, BYU graduate programs, like undergraduate programs, should be spiritually strengthening as well as intellectually enlarging.

Graduate programs should help students achieve excellence in the discipline by engaging its primary sources; mastering its literature, techniques, and methodologies; and undertaking advanced systematic study—all at a depth that clearly exceeds the undergraduate level. In addition, graduate programs should prepare students to contribute to their disciplines through their own original insights, designs, applications, expressions, and discoveries. Graduate study should thereby enable a variety of contributions—such as teaching complex knowledge and skills, conducting original research, producing creative work that applies advanced learning in the everyday world, and extending professional service to the discipline and to society.

These intellectual aims of a BYU education are intended to give students understanding, perspective, motivation, and interpersonal abilities—not just information and academic skills. BYU should furnish students with the practical advantage of an education that integrates academic skills with abstract theories, real-world applications, and gospel perspectives. Such an education prepares students who can make a difference in the world, who can draw on their academic preparation to participate more effectively in the arenas of daily life. They are parents, Church leaders, citizens, and compassionate human beings who are able to improve the moral, social, and ecological environment in which they and their families live. They are scientists and engineers who can work effectively in teams and whose work reflects intellectual and moral integrity; historians who write well and whose profound understanding of human nature and of divine influences informs their interpretation of human events; teachers whose love for their students as children of God is enriched by global awareness and foreign language skill; artists whose performances seek to be flawless in both technique and inspiration; business leaders whose economic judgments and management styles see financial reward not as an end but as a means to higher ends. BYU graduates thus draw on an educated intellect to enhance not only what they *know* but also what they *do* and, ultimately, what they *are*.

Character Building

A firm, unchangeable course of righteousness through life is what secures to a person true intelligence. —Brigham Young[6]

Because it seeks to educate students who are renowned for what they are as well as for what they know, Brigham Young University has always cared as much about strong moral character as about great mental capability. Consequently, a BYU education should reinforce such moral virtues as integrity, reverence, modesty, self-control, courage, compassion, and industry. Beyond this, BYU aims not merely to teach students a code of ethics but to help them become partakers of the divine nature. It aspires to develop in its students character traits that flow from the long-term application of gospel teachings to their lives. This process begins with understanding humankind's eternal nature and ends with the blessing of eternal life, when human character reflects in fully flowered form the attributes of godliness. Along the way, the fruits of a well-disciplined life are augmented and fulfilled by the fruits of the spirit of Jesus Christ—such as charity, a Christlike love for others, which God "hath bestowed upon all who are true followers of his Son, Jesus Christ" (Moroni 7:48). Students thus perfect their quest for character development by coming unto Christ through faith, repentance, and righteous living. Then their character begins to resemble his, not just because they think it should but because that is the way they are.

President David O. McKay taught that character is the highest aim of education: above knowledge is wisdom, and above wisdom is character. "True education," he explained, "seeks to make men and women not only good mathematicians, proficient linguists, profound scientists, or brilliant literary lights, but also honest men with virtue, temperance, and brotherly love."[7]

Consequently, a BYU education should bring together the intellectual integrity of fine academic discipline with the spiritual integrity of personal righteousness. The result is competence that reflects the highest professional and academic standards—strengthened and ennobled by Christlike attributes.

Thus understood, the development of character is so important that BYU "has no justification for its existence unless it builds character, creates and develops faith, and makes men and women of strength and courage, fortitude, and service—men and women who will become stalwarts in the Kingdom and bear witness of the . . . divinity of the gospel of Jesus Christ. It is not justified on an academic basis only."[8] Rather, it fulfills its promise when "the morality of the graduates of this University provide[s] the music of hope for the inhabitants of this planet."[9]

Every part of the BYU experience should therefore strengthen character—academic integrity in taking a test or writing a research paper; sportsmanship on the playing field; the honest reporting of research findings in a laboratory; careful use of university funds derived from the tithes of Church members; treating all other people with dignity and fairness; and wholehearted acceptance of commitments made to bishops and parents. Character is constructed by small decisions. At this personal level of detail, BYU will realize its hope of teaching "those moral virtues which characterize the life and teachings of the Son of God" (Mission Statement).

Lifelong Learning and Service

We might ask, when shall we cease to learn? I will give you my opinion about it; never, never. . . . We shall never cease to learn, unless we apostatize from the religion of Jesus Christ. —Brigham Young[10]

Our education should be such as to improve our minds and fit us for increased usefulness; to make us of greater service to the human family. —Brigham Young[11]

Well-developed faith, intellect, and character prepare students for a lifetime of learning and service. By "entering to learn" and continuing to learn as they "go forth to serve," BYU students strengthen not only themselves—they "also bring strength to others in the tasks of home and family life, social relationships, civic duty, and service to mankind" (Mission Statement).

1. Continual Learning. BYU should inspire students to keep alive their curiosity and prepare them to continue learning throughout their lives. BYU should produce careful readers, prayerful thinkers, and active participants in solving family, professional, religious, and social problems. They will then be like Abraham of old, who had been "a follower of righteousness, desiring also to be one who possessed great knowledge, and to be a greater follower of righteousness, and to possess a greater knowledge, . . . desiring to receive instructions, and to keep the commandments of God." In this lifelong quest, they, like Abraham, will find "greater happiness and peace and rest" (Abraham 1:2). Thus a BYU diploma is a beginning, not an end, pointing the way to a habit of constant learning. In an era of rapid changes in technology and information, the knowledge and skills learned this year may require renewal the next. Therefore, a BYU degree should educate students in how to learn, teach them that there is much still to learn, and implant in them a love of learning "by study and also by faith" (D&C 88:118).

2. Service. Since a decreasing fraction of the Church membership can be admitted to study at BYU, it is ever more important that those who are admitted use their talents to build the kingdom of God on the earth. Hence, BYU should nurture in its students the desire to use their knowledge and skills not only to enrich their own lives but also to bless their families, their communities, the Church, and the larger society. Students should learn, then demonstrate, that their ultimate allegiance is to higher values, principles, and human commitments rather than to mere self-interest. By doing this, BYU graduates can counter the destructive and often materialistic self-centeredness and worldliness that afflict modern society. A service ethic should permeate every part of BYU's activities—from the admissions process through the curriculum and extracurricular experiences to the moment of graduation. This ethic should also permeate each student's heart, leading him or her to the ultimate wellspring of charity—the love for others that Christ bestows on his followers.

Conclusion

Education is a good thing, and blessed is the man who has it, and can use it for the dissemination of the Gospel without being puffed up with pride. —Brigham Young[12]

These are the aims of a BYU education. Taken together, they should lead students toward wholeness: "the balanced development of the total person" (Mission Statement). These aims aspire to promote an education that helps students integrate all parts of their university experience into a fundamentally sacred way of life—their faith and reasoning, their knowledge and conduct, their public lives and private convictions. Ultimately, complete wholeness comes only through the Atonement of him who said, "I am come that they might have life, and that they might have it more abundantly" (John 10:10). Yet a university education, guided by eternal principles, can greatly "assist individuals in their quest for" that abundant "eternal life" (Mission Statement).

A commitment to this kind of education has inspired the prophets of the past to found Church schools, like BYU, on the principle that "to be learned is good if they hearken unto the counsels of God" (2 Nephi 9:29). These prophets have known the risks of such an enterprise, for "that happiness which is prepared for the saints" shall be hid forever from those "who are puffed up because of their learning, and their wisdom" (see 2 Nephi 9:42–43). Yet they have also known that education plays a vital role in realizing the promises of the Restoration; that a broad vision of education for self-reliance and personal growth is at the very heart of the gospel when the gospel is at the heart of education. To the degree that BYU achieves its aims, the lives of its students will confirm Brigham Young's confidence that education is indeed "a good thing," blessing all those who humbly and faithfully use it to bless others.

Notes

1. Brigham Young, quoted by George H. Brimhall in "The Brigham Young University," *Improvement Era*, vol. 23, no. 9 (July 1920), p. 831.

2. Brigham Young, in Reinhard Maeser, *Karl G. Maeser: A Biography* (Provo: Brigham Young University, 1928), p. 79.

3. Spencer W. Kimball, "Education for Eternity," Preschool Address to BYU Faculty and Staff, 12 September 1967, p. 11.

4. Joseph Smith, *Teachings of the Prophet Joseph Smith*, sel. Joseph Fielding Smith (Salt Lake City: Deseret Book Company, 1972), p. 137.

5. Brigham Young, *Journal of Discourses* (hereafter *JD*), vol. 10 (London: Latter-day Saints' Book Depot, 1854–86), p. 224.

6. Brigham Young, *JD* 8:32.

7. David O. McKay, "Why Education?" *Improvement Era*, vol. 70, no. 9 (September 1967), p. 3.

8. Spencer W. Kimball, "On My Honor," in *Speeches of the Year, 1978* (Provo: Brigham Young University Press, 1979), p. 137.

9. Spencer W. Kimball, "Second Century Address and Dedication of Carillon Tower and Bells," Brigham Young University, 10 October 1975, p. 12.

10. Brigham Young, *JD* 3:203.

11. Brigham Young, *JD* 14:83.

12. Brigham Young, *JD* 11:214.

Approved by the BYU Board of Trustees on March 1, 1995.

Brigham Young University: A Unique Environment

Religious Environment

The Church of Jesus Christ of Latter-day Saints sponsors BYU to provide a university education in an atmosphere that nurtures spiritual growth and a strong testimony of the divinity of Jesus Christ. Church programs are closely correlated at all levels with the activities of the university, and students will find many opportunities to grow spiritually.

BYU Stakes and Wards

To give students maximum opportunity to participate, the Church is organized into a number of BYU stakes composed of several wards of approximately 150 members each. All single students living away from home who are members of The Church of Jesus Christ of Latter-day Saints become members of a BYU ward. Married students not living in university housing may attend either the BYU ward or the residential ward in which they live.

Other Religious Denominations

Approximately twenty-five other religious denominations are represented in the BYU student body. These students are encouraged to attend the congregation of their faith.

Religion Classes

All students at BYU should include regular gospel study as a continuous part of their university experience. Full-time undergraduate students need to take the equivalent of one religion class each semester of enrollment until a total of 14 semester hours in religion has been earned toward a bachelor's degree. See the Religious Education section of this catalog for more information.

Devotionals and CES Firesides

University devotionals, held throughout the year on Tuesdays at 11:05 a.m., provide an inspirational and integrative part of the university experience. These assemblies are occasions to celebrate the shared sense of values and community in the university. Participation in these gatherings renews spiritual commitment and extends knowledge of significant religious, intellectual, and cultural matters.

Devotional speakers, selected from the General Authorities and other leaders of the Church and university, come to teach the gospel and affirm the spiritual dimension of the university experience for students, faculty, and staff. An additional opportunity is provided by regular Church Educational System firesides, usually held on the first Sunday of the month.

Most campus offices and services are closed during university assemblies so that members of the university community may participate.

Academic Environment

The academic environment extends beyond the four walls of a university classroom. Serious students seek enrichment in the library, at university forums and lectures, and through research. Some students may choose to become involved in the Honors Program or live in one of the "quiet halls" on campus—and everyone benefits from drawing on the resources available at college advisement centers.

Harold B. Lee Library

The Harold B. Lee Library's collection numbers over three million volumes including books, periodicals, government documents, microfilm, and other nonprint items. BYLINE, the library's Web-based computer system, includes the online catalog, many full-text databases, and numerous electronic indexes to other sources. The library is a depository for United States government documents and regularly receives publications of state and local governments. The Utah Valley Regional Family History Center (UVRFHC) supports family history research through an extensive collection of microfilm and microfiche. The Special Collections and Manuscripts department houses non-circulating books and manuscripts related to Mormonism, western Americana, incunabula, Victorian and Edwardian literature, historical manuscripts and photographs, motion pictures, and many other areas. The learning resource center provides an optimal learning environment for out-of-class instructional activities involving audio, visual, and digital media.

The general collection is housed on five levels. An information desk and general reference desk are located on the ground floor (level 3), and professional librarians and support staff provide research assistance at subject reference desks. Instruction in library and information literacy is available.

The general library facilities are open to students, faculty, alumni, and other community patrons. Regularly enrolled students present their identification cards to borrow books and have full access to all resources on BYLINE (*www.lib.byu.edu*). Non-BYU patrons have access only to the online catalog and selected electronic indexes.

The library is open during fall and winter semesters from 7:00 a.m. to midnight Monday through Friday and from 8:00 a.m. to midnight Saturday. During spring and summer terms, the library closes at 10:00 p.m. Monday through Saturday.

BYU students and faculty may also use the facilities of other Utah college and university libraries and other major research libraries in the United States. These cooperative agreements were instituted by the Utah Academic Library Consortium (UALC) and the Research Libraries Group (RLG). The BYU Library is a participating member of both organizations. Libraries operated by The Church of Jesus Christ of Latter-day Saints are also available to Brigham Young University students, including the library of the Church Historical Department located in Salt Lake City.

University Forums

University forums are held on selected Tuesdays at 11:05 a.m. and are designed to enrich the general education experience. Speakers are noted authorities in the arts, sciences, humanities, media, and government, chosen for their contributions to their field and their ability to inspire and communicate. Participation in these assemblies and the associated question-and-answer sessions prompts inquiry into significant intellectual, cultural, and social issues and helps lay the foundation for lifelong learning.

New Student Orientation

The purpose of New Student Orientation (NSO) is to help new and transfer students "become familiar with the academic, spiritual, moral, and social opportunities and challenges at

Brigham Young University" (from "Purpose, Principles and Focus," the mission statement of New Student Orientation). Additionally, NSO provides new students several opportunities to become acquainted with the resources available to them on campus. Finally, it offers a great chance to meet new friends—among faculty members, staff personnel, and other students.

NSO events and activities range from the academic through the informational to the out-and-out fun, but they are always friendly and focused on the needs of new students. NSO activities vary according to the term or semester. They may include campus tours; learning about the library, academic advising, scholarships, financial aid, Freshman Academy, honors education, and more; and an introduction to several of the emotionally and spiritually satisfying traditions of the Y.

Many of the activities are organized around Y Groups, small cohorts of students led by upperclassmen, which offer students individualized attention. Orientation at BYU balances the various needs of new students by combining appropriate resources, activities, and personnel. To feel comfortable in an institution as complex as BYU, with its myriad of opportunities, New Student Orientation is practically a requirement.

Academic Advisement

Academic advising is an essential component of a BYU education. The university is committed to providing the assistance students need at every step.

Students will be successful if they:

- Prepare for and keep appointments with their CAC academic advisor, preferably at least once a calendar year
- Establish and follow an academic plan for graduation
- Use university resources such as Major Academic Plans (MAPs), Academic Information Management (AIM), and GE and major progress advisement by computer (ABC Report)
- Read the undergraduate catalog and become familiar with their basic academic program and requirements
- Review personal academic progress each semester

Advisors are responsible to:

- Stay abreast of major and general education requirements, including the current class schedule, catalogs, and other advisement resources
- Assist students by making appropriate recommendations for registration
- Help students clarify their values and goals to get a clear picture of their academic career
- Aid students in planning an educational program consistent with their academic progress
- Offer friendly, attentive, informative service, listening to the student's situation before offering a solution

There are five key components to advisement

- CACs (College Advisement Centers)
- ABC Report (Advisement by Computer Report)
- AIM (available on Route Y through the BYU homepage, your net ID, and your PIN number)
- MAP (available on the Web through the BYU homepage)
- Faculty advisement

College Advisement Centers. CACs exist in every academic college. At these centers students receive personal assistance in meeting their educational goals as quickly as possible. Students should contact their advisement centers at least once a calendar year.

ABC Reports. To function hand in hand with CAC and faculty advising, BYU has pioneered a computer system that provides students with accurate academic progress information. Offering immediate access to curriculum degree requirements and personal academic records, ABC Reports can be accessed from home, from computer kiosks across campus, and at the CACs through Route Y. Students should carefully review the ABC Report to monitor their own academic progress.

AIM provides students with easy access to up-to-the-minute information on their academic progress and other vital information. At AIM terminals students can change their addresses and phone numbers, access their class schedules, determine course availabilities and instructor schedules, monitor their ABC Reports, look at their grades and BYU credit, make PIN changes, check on transfer and AP credit, and conduct personal registration procedures.

MAP. This supplement to the BYU Undergraduate Catalog is also a valuable academic resource for students as they plan and prepare their academic schedules. The MAP includes information regarding general education and major requirements, semester-by-semester recommendations for course selection, and course availability.

Academic Support Office

2500 WSC
(801) 422-2723
E-mail: academic_support@byu.edu

All students admitted to the university have the potential to succeed academically; however, some students have difficulty achieving the level of success required to remain in good academic standing. The mission of the Academic Support Office is to assist students in maintaining that level of academic success. Administered through the Counseling and Career Center, a department of Student Life, the Academic Support Office uses the combined resources of the university to help students resolve most academic problems.

Students with academic problems often have difficulties in one or more of the following areas: (1) Personal concerns outside the academic realm—such as adjustment problems, illness, or relationship problems—that distract from academic goals. Such problems may be addressed by helping students refocus on their goals. (2) Inadequate academic preparation to meet the rigors of a university experience. Study-skills training helps students identify strategies appropriate to the university experience. (3) Learning styles that worked in high school but are not productive at the university. A learning-style assessment and counseling may help identify and use academic strengths more successfully. (4) Ambiguous career goals that cause students to flounder within the university. With career guidance they can move toward a more timely graduation.

Counselors are trained to assist students with time management, study skills, learning style, career choice, and other academic concerns. Students who experience academic difficulties are encouraged to contact the Academic Support Office.

Career Placement Services

2410 WSC
Phone: (801) 378-3000
Fax: (801) 378-3444

Career Placement Services assists BYU students and alumni from all colleges, departments, majors, and class years with their job and internship preparation and searches.

Students who register gain access to many valuable services, including individual and group advisement, on-campus student interviews with employer representatives, and information about specific job and internship opportunities submitted by employers from business, industry, education, and government. An excellent online database system (eRecruiting.com) has been added that allows students to register, set up profiles, and prepare and send documents to employers, as well as to research employers and check interview schedules.

Career Placement Services maintains a collection of books, periodicals, brochures, and videotapes relating to employing organizations. Also available are materials and workshops that show how to write letters of application, prepare resumés, and conduct oneself in personal interviews.

To maximize the number of employment contacts available to all graduating students, Career Placement Services works closely with each academic department. Ongoing communication is also maintained with college advisement centers.

Visit us at *http://www.byu.edu/stlife/cdc.*

Academic Internships

Academic internships formally integrate university-level academic study with work experience in cooperating organizations. The combined study-work experiences are offered by academic departments as an extension of regular day school programs. They are designed to complement and strengthen the student's major or minor field of study. In addition to academic internships within the United States, internships in international settings are also available through the David M. Kennedy Center for International Studies for students who are pursuing majors that focus on international curricula.

Most departments offer internship opportunities that give students a combination of academic learning with a work practicum. Students desiring to register for academic internships must receive prior departmental approval and complete registration before commencing an internship.

Course offerings vary according to student needs and may include registration in 199R, 299R, 399R, 496R, or 599R courses depending upon department and student objectives. Credit varies according to academic expectations and generally range from 1 to 9 semester hours. Pass/fail and/or letter grades are based upon academic as well as work performance and course enrollment.

Most colleges and departments have academic internship coordinators. However, for further information concerning the opportunities and benefits of this academic area, contact the university director of the Office of Academic Internships, 3215A WSC, (801) 422-3337. Visit us at *http://www.byu.edu/academicintern.*

Jacobsen Center for Service and Learning

2010 WSC, (801) 422-1277
2330 WSC, (801) 422-8686

The Jacobsen Center for Service and Learning supports reflective and applied learning by fostering meaningful service opportunities on campus, in the local community, and around the world. The variety of opportunities supported by the center include: volunteer service programs, course-related service assignments or curricula, tutoring programs, and international service programs. Such service is mutually beneficial: it meets real community needs, and it provides a rich context for experiential learning and personal development.

The Jacobsen Center coordinates with other departments and offices on campus to develop and promote various service and learning initiatives both on and off campus and supports faculty by offering consultation and resources for those engaging in service-learning. The center assists with service activities through connections with a wide variety of community agencies, service organizations, and local schools.

The center is also home to Tutoring Services, a peer-tutoring program available to all BYU students. Tutoring Services matches around 500 students with volunteer peer tutors each semester.

The Jacobsen Center occupies two spaces in the Wilkinson Student Center. The main office (2010 WSC) focuses on academic service-learning and faculty consultation and houses the director of the center and the Tutoring Program. The Community Service Office (2330 WSC) is a central place for students to find service involvement opportunities in the community (it is home to over 30 community service programs) and provides resource listings for a variety of service needs and opportunities.

Graduate Studies

To the student seeking advanced study, Brigham Young University offers a variety of graduate degree opportunities. Excellent graduate programs can be found in each of the colleges and schools, and successful completion of one results in the awarding of a master's or doctoral degree.

The master's degree requires advanced course work, demonstrated mastery in vital aspects of a discipline, skill in research methodology and theory, and preparation for future creative work. In certain disciplines, graduate programs blend scholarly insight with technical knowledge and skill. Integrative examinations, a major culminating piece of written work or performance, and an accompanying oral defense of that work are required.

The doctoral degree requires the student to demonstrate an impressive scholarly competence, which includes the ability to conduct and report research in a highly effective manner. Advanced systematic study in a discipline is also essential and is followed by comprehensive examinations that require students to integrate and understand the collective knowledge of their disciplines. A dissertation resulting from independent research is defended in a concluding oral examination.

Students who are interested in pursuing advanced degrees are encouraged to become involved in research and creative activities during their undergraduate experience.

Research and Creative Activities at BYU

One of the most exciting and valuable learning experiences available to both undergraduate and graduate students at BYU is the opportunity to participate in original research and creative activities. BYU has accomplished faculty members in all areas, many of whom enjoy international reputations for the quality of their creative endeavors. Many professors enlist the help of undergraduate students, who work side by side with faculty mentors and graduate students in a laboratory or studio setting.

A wide variety of research experiences are available in many departments across campus. For example, the student might be involved in the synthesis of a new medicinal drug in the chemistry laboratory or participate in the discovery of a new species of dinosaur on a Colorado mesa. Other examples of programs involving student participation include the study of robotics systems, computer architecture, battery technology, high-energy physics, international business methods, child psychology, drug-induced birth defects, educational methodology, molecular genetics, social implications of drug use, stability and satisfaction in marriage, Church history, and a host of other topics. Students who are interested in participating in research programs are encouraged to contact their major department chair or speak directly with individual professors.

The Office of Research and Creative Activities (ORCA) manages, on behalf of the administration, two programs whose purpose is to bring together students and faculty in mentored experiences. The first oversees the ORCA undergraduate scholarships. Each fall a request for proposals goes out to all undergraduate, full-time students. One-third of all proposals are funded at $1500 each. In the fall of 2002 over 1200 proposals were received, representing every college and academic unit. Awards are made in early winter. The second program oversees the mentored environments grants. Faculty are encouraged to submit proposals to create or enhance a mentored environment for undergraduate and graduate students. Awards range from $2,000 to $20,000, and proposals are collected in late fall and awarded in midwinter. For more information, contact any deprtment or college, or contact ORCA at A-261 ASB, (801) 422-3841, *http://orca.byu.edu.*

Student Development Course Work

The Counseling and Career Center offers courses under the title Student Development. These courses are designed to help with the personal challenges and tasks facing college students. Some of the relevant student-centered topics are college study skills, life planning, time management, decision making, and test taking strategies. Several courses are also designed to help students decide on a college major and a career and to make the transition from college to the world of work. Each class has material to help students identify their values, develop character, and make progress with their personal goals for life. The BYU Undergraduate Catalog and the current class schedule list these courses under Student Development. For further information contact the Counseling and Career Center, 2510 WSC, (801) 422-4007.

Cultural Environment

Students can immerse themselves in culture at BYU. Dance, theatre, music, art exhibits, museums—all await to nourish the soul seeking after "anything virtuous, lovely, or of good report or praiseworthy."

BYU sponsors performance groups in folk dance, ballroom dance, ballet, modern dance, and precision marching. Each year these groups perform major concerts on campus and tour throughout the world.

Popular and classical plays and films, as well as original compositions, are offered by the Department of Theatre and Media Arts. The College of Humanities sponsors a weekly International Cinema Program, and from September through March the School of Music presents several recitals and concerts weekly.

Museum of Art

The Museum of Art was completed and opened during fall 1993. Funded by private donors, the 100,000-square-foot museum is located directly north of the Harris Fine Arts Center. A sculpture garden separates the two buildings, and together they form a striking visual and performing arts center. The museum houses the university's superb collection of paintings, sculpture, decorative arts, works on paper, and historical musical instruments. Major bodies of work the university owns are by such eminent artists as Mahonri Y. Young, J. Alden Weir, Maynard Dixon, C. C. A. Christensen, and Minerva Teichert. Besides its rich array of American art, the collection includes rare prints by Rembrandt, Dürer, and Daumier.

Major traveling exhibitions and exhibitions from the museum's permanent collections are scheduled on a rotating basis. The museum offers a variety of educational programs for campus and community audiences as well. Included in the Horne Center for the Study of Art are a print study room, a library, a didactic gallery, a seminar room, and classrooms. The museum also features a café, bookstore, and auditorium.

Performing Arts Series

The BYU Performing Arts Series presents some of the most celebrated artists in the world. Concerts and productions are scheduled throughout each year in the Harris Fine Arts Center and other venues. Season or individual event tickets are available at reduced prices for students, faculty, and staff. For further information contact the Fine Arts Ticket Office at (801) 378-HFAC (4322).

In recent years the Performing Arts Series has included:

James Galway
Wynton Marsalis
Alvin Ailey Repertory Dance Ensemble
Claire Bloom
Dawn Upshaw
Peking Opera
Ballet West
King's Singers
Utah Symphony
Ani and Ida Kavafian
Canadian Brass
Ballet Folklorico de Mexico

M. L. Bean Life Science Museum

H. Duane Smith, Director
Douglas C. Cox, Assistant Director
290 MLBM

The Monte L. Bean Museum is a fully functional, accredited, professional museum. Its vast teaching and research collections include nearly two million arthropods, fish, amphibians, reptiles, mammals, birds, and prepared shells, and more than 600,000 plants and lichens. Specimens for these collections, which represent creative work by university faculty and students, have been gathered throughout the world, making the museum one of the major repositories of scientific material in the western United States.

The museum and its collections are utilized by university classes in integrative biology, plant and animal science, education, art, and other disciplines. The Monte L. Bean Life Science Museum also maintains and manages the Lytle Nature Preserve for the university. Located in the northernmost extension of the Mojave Desert southwest of St. George, Utah, this 562-acre desert classroom is in a part of Utah that is unique not only for its plant and animal communities but also for its setting.

Public programs include changing, rotating, and permanent exhibits of natural communities that illustrate the fascinating relationships between plants, animals, and their physical environment. Educational programs serve more than 200,000 annual visitors and provide classes and programs for public and private schools and many other kinds of organizations. Museum hours are Monday through Friday from 10:00 a.m. to 9:00 p.m. and Saturday from 10:00 a.m. to 5:00 p.m. The museum is closed on Sunday. Admission is free.

The Western North American Naturalist, a nationally recognized natural history journal, is published from the museum. Other museum publications include professional and popular works such as *A Utah Flora* and *Snakes of Utah.*

Museum of Peoples and Cultures

Marti Lu Allen, Director
105 ALLN

The Museum of Peoples and Cultures (MPC) houses, cares for, and performs research on archaeological and ethnographic collections from around the world. The strengths of the museum's holdings are in prehistoric Utah, the American Southwest, Mesoamerica, ancient Peru, and Polynesia. An approved state and federal archaeological repository, the museum also holds a noncirculating library and a photographic archive documenting BYU archaeological research and artifactual materials.

Institutional objectives are to interpret and help elucidate the history and culture of the peoples of the world and to convey that knowledge to the scholarly community as well as to the general public. The museum's strongest commitment lies in serving the teaching and research functions of the university. In this, BYU's "teaching museum," not only do students perform office and collections duties, but students also curate all exhibitions as part of the formal curricula taught by museum staff adjunct to the Department of Anthropology.

Students plan and execute public programs and design promotional strategy as part of their course work as well. Offered in a series of three consecutive courses—one each fall semester, winter semester, and spring term (enrollment subject to director's approval)—the courses have as their principal objectives (1) to provide students the broadest possible range of museum experience (e.g., collections management, registration, outreach, curatorial research) and (2) to advise students in formulating realistic career objectives.

The museum's student exhibitions are staged in Allen Hall and change yearly. The museum also produces occasional satellite exhibits at other university locations, such as the Museum of Art and the Joseph Smith Building. Tours of the Allen Hall galleries can be arranged by calling (801) 422-0020. Because scheduling is based on student employee availability, it is advisable to book tours from one to three weeks in advance. Visitors may also choose to guide themselves through the galleries, but groups larger than fifteen people should contact the museum in advance for logistical instructions.

The MPC offers many community educational opportunites. Available for loan to classrooms and inbound populations are anthropology teaching kits that explore the native cultures of various geographical areas. The kits include replica artifacts, handicrafts, and educational books and videos. Students and civic

volunteers are invited to help with educational programming, public relations, archaeological research, and public presentations. The MPC hosts an activity patch program for Scouts of all ages and other interested parties. Museum patches can be earned by visiting the museum and completing the patch requirements. For information about any of these programs, call (801) 422-0020.

Located at 700 North 100 East in Provo (one block south of the Brick Oven restaurant), the museum is open from 9:00 a.m. to 5:00 p.m. Monday through Friday. Admission is free, and guided tours can be arranged for a nominal charge. The MPC is closed on holidays and for two weeks in December between fall and winter semesters. Office and library hours vary according to student schedules.

Faculty and Student Performances, Exhibitions, and Showcases

Throughout the year the faculty of the Departments of Visual Arts, Dance, Theatre and Media Arts, and the School of Music are featured in exhibitions, plays and other productions, and music performances.

As part of their educational experience, students, both individually and in groups, present concerts, exhibitions, films, plays, recitals, and productions. Theatre Ballet, The Dancers' Company, International Folk Dance Ensemble, Ballroom Dance Company, Philharmonic and Chamber Orchestras, Young Ambassadors, Living Legends, University Singers, and Synthesis Jazz Ensemble are but a few of the groups that perform in the various university venues. Plays, musical theatre, and opera, as well as art and design exhibitions, are also a part of the outstanding student fare available to the university community.

For further information contact the Fine Arts Ticket Office at (801) 378-HFAC (4322).

Recreational Environment

Students can enjoy the small-town friendliness of Provo or drive 45 miles to the north for the cosmopolitan diversity that Salt Lake City offers. Whereas Salt Lake City is home to Ballet West, the Mormon Tabernacle Choir, and the Utah Symphony, the Provo area prides itself on its own Utah Valley Symphony and several talented community choirs and theatre groups.

A Great Outdoors

The Wasatch Mountains overlook BYU on the east, and to the west lies Utah Lake. Within an hour's drive are several canyons and ski resorts; six national parks are only a half day away. Outdoor gear can be rented on campus for everything from skiing to windsurfing.

Athletic Facilities

BYU's athletic facilities are among the best in the nation. Complementing the major sports complexes—the Marriott Center, football stadium, baseball diamond, softball diamond, indoor tennis pavilion, and track and field stadium—are the Richards Building and the Smith Fieldhouse. The Richards Building has facilities for racquetball, volleyball, basketball, aerobics, dance, and swimming, and the Smith Fieldhouse houses ball courts, weight rooms, an indoor track, and a west annex big enough for spring batting practice.

Intramural Activities

The campus intramural program, consisting of more than thirty events involving thousands of participants in both men's and women's activities, is one of the largest and most comprehensive in the United States. Students may participate in team activities and individual events. The intramural program offers divisions for different skill levels in each activity and provides awards for the winners in each division. Numerous employment opportunities are available as game supervisors and officials.

Intercollegiate Competition

BYU begins its fifth year in the Mountain West Conference, which also includes the Air Force Academy, Colorado State University, the University of Nevada—Las Vegas, the University of New Mexico, San Diego State University, the University of Utah, and the University of Wyoming.

The men's intercollegiate program at BYU consists of ten sports: baseball, basketball, cross country, football, golf, swimming and diving, tennis, indoor track, outdoor track and field, and volleyball.

Women at BYU compete in eleven intercollegiate sports: basketball, cross country, golf, gymnastics, soccer, softball, swimming and diving, tennis, indoor track, outdoor track and field, and volleyball.

Nationally ranked in many sports, BYU has won national championships in football, golf, and track and multiple championships in cross country and volleyball. BYU's overall athletic program was ranked twenty-third nationally in 2002 by the National Association of Collegiate Directors of Athletics.

Extramural Competition

The extramural sports program at BYU provides opportunities for students to participate on an intercollegiate level throughout the United States and Canada in team sports not designated NCAA.

One of the best organized and most respected programs in the country, BYU's extramural sports program offers four sports for men (soccer, racquetball, lacrosse, and rugby) and one sport for women (racquetball). Many of the teams have been nationally ranked during the last several years.

Church Educational System Honor Code

Brigham Young University, Brigham Young University—Hawaii, BYU—Idaho, and LDS Business College exist to provide an education in an atmosphere consistent with the ideals and principles of The Church of Jesus Christ of Latter-day Saints. That atmosphere is created and preserved through commitment to conduct that reflects those ideals and principles. Members of the faculty, administration, staff, and student body at BYU, BYU—Hawaii, BYU—Idaho, and LDSBC are selected and retained from among those who voluntarily live the principles of the gospel of Jesus Christ. Observance of such is a specific condition of employment and admission. Those individuals who are not members of The Church of Jesus Christ of Latter-day Saints are also expected to maintain the same standards of conduct, except church attendance. All who represent BYU, BYU—Hawaii, BYU—Idaho, and LDSBC are to maintain the highest standards of honor, integrity, morality, and consideration of others in personal behavior. By accepting appointment on the faculty, continuing in employment, or continuing class enrollment, individuals evidence their commitment to observe the Honor Code standards approved by the Board of Trustees "at all times and . . . in all places" (Mosiah 18:9).

Honor Code Statement

We believe in being honest, true, chaste, benevolent, virtuous, and in doing good to all men. . . . If there is anything virtuous, lovely, or of good report or praiseworthy, we seek after these things (Thirteenth Article of Faith).

As a matter of personal commitment, faculty, administration, staff, and students of Brigham Young University, Brigham Young University—Hawaii, Brigham Young University—Idaho, and LDS Business College seek to demonstrate in daily living on and off campus those moral virtues encompassed in the gospel of Jesus Christ, and will

- Be honest
- Live a chaste and virtuous life
- Obey the law and all campus policies
- Use clean language
- Respect others
- Abstain from alcoholic beverages, tobacco, tea, coffee, and substance abuse
- Participate regularly in church services
- Observe the Dress and Grooming Standards
- Encourage others in their commitment to comply with the Honor Code

Specific policies embodied in the Honor Code include (1) the Academic Honesty Policy, (2) the Dress and Grooming Standards, (3) the Residential Living Standards, and (4) the Continuing Student Ecclesiastical Endorsement. (Refer to institutional policies for more detailed information.)

Academic Honesty Policy

The first injunction of the BYU Honor Code is the call to "be honest." Students come to the university not only to improve their minds, gain knowledge, and develop skills that will assist them in their life's work, but also to build character. "President David O. McKay taught that character is the highest aim of education" (The Aims of a BYU Education, p. 6). It is the purpose of the BYU Academic Honesty Policy to assist in fulfilling that aim.

BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including but not limited to plagiarism, fabrication or falsification, cheating, and other academic misconduct:

Plagiarism

Intentional plagiarism is a form of intellectual theft that violates widely recognized principles of academic integrity as well as the Honor Code. Such plagiarism may subject the student to appropriate disciplinary action administered through the university Honor Code Office, in addition to academic sanctions that may be applied by an instructor. Inadvertent plagiarism, whereas not in violation of the Honor Code, is nevertheless a form of intellectual carelessness that is unacceptable in the academic community. Plagiarism of any kind is completely contrary to the established practices of higher education, where all members of the university are expected to acknowledge the original intellectual work of others that is included in one's own work. In some cases, plagiarism may also involve violations of copyright law.

Intentional Plagiarism—Intentional plagiarism is the deliberate act of representing the words, ideas, or data of another as one's own without providing proper attribution to the author through quotation, reference, or footnote.

Inadvertent Plagiarism—Inadvertent plagiarism involves the inappropriate, but nondeliberate, use of another's words, ideas, or data without proper attribution. Inadvertent plagiarism usually results from an ignorant failure to follow established rules for documenting sources or from simply being insufficiently careful in research and writing. Although not a violation of the Honor Code, inadvertent plagiarism is a form of academic misconduct for which an instructor can impose appropriate academic sanctions. Students who are in doubt as to whether they are providing proper attribution have the responsibility to consult with their instructor and obtain guidance.

Examples of plagiarism include:

Direct Plagiarism—The verbatim copying of an original source without acknowledging the source.

Paraphrased Plagiarism—The paraphrasing, without acknowledgment, of ideas from another that the reader might mistake for your own.

Plagiarism Mosaic—The borrowing of words, ideas, or data from an original source and blending this original material with one's own without acknowledging the source.

Insufficient Acknowledgment—The partial or incomplete attribution of words, ideas, or data from an original source.

Plagiarism may occur with respect to unpublished as well as published material. Acts of copying another student's work and submitting it as one's own individual work without proper attribution is a serious form of plagiarism.

Fabrication or Falsification

Fabrication or falsification is a form of dishonesty where a student invents or distorts the origin or content of information used as authority. Examples include:

1. Citing a source that does not exist.
2. Attributing to a source ideas and information that are not included in the source.
3. Citing a source for a proposition that it does not support.
4. Citing a source in a bibliography when the source was neither consulted nor cited in the body of the paper.
5. Intentionally distorting the meaning or applicability of data.
6. Inventing data or statistical results to support conclusions.

Cheating

Cheating is a form of dishonesty where a student attempts to give the appearance of a level of knowledge or skill that the student has not obtained. Examples include:

1. Copying from another person's work during an examination or while completing an assignment.
2. Allowing someone to copy from you during an examination or while completing an assignment.
3. Using unauthorized materials during an examination or while completing an assignment.
4. Collaborating on an examination or assignment without authorization.
5. Taking an examination or completing an assignment for another or permitting another to take an examination or to complete an assignment for you.

Other Academic Misconduct

Academic misconduct includes other academically dishonest, deceitful, or inappropriate acts that are intentionally committed. Examples of such acts include but are not limited to:

1. Inappropriately providing or receiving information or academic work so as to gain unfair advantage over others.
2. Planning with another to commit any act of academic dishonesty.
3. Attempting to gain an unfair academic advantage for oneself or another by bribery or by any act of offering, giving, receiving, or soliciting anything of value to another for such purpose.
4. Changing or altering grades or other official educational records.
5. Obtaining or providing to another an unadministered test or answers to an unadministered test.
6. Breaking and entering into a building or office for the purpose of obtaining an unauthorized test.
7. Continuing work on an examination or assignment after the allocated time has elapsed.
8. Submitting the same work for more than one class without disclosure and approval.

Procedures for Handling Incidents of Academic Dishonesty or Other Academic Misconduct

Faculty are responsible to establish and communicate to students their expectations of behavior with respect to academic honesty and the student's conduct in the course. Responsible instructors will investigate these incidents, determine the facts, and take appropriate action. Finally, the instructor should notify the Honor Code Office of the final disposition of the incident as a means of encouraging behavior change and discouraging repeat violations. If the incident of academic dishonesty involves the violation of a public law, e.g., breaking and entering into an office or stealing an examination, the act should also be reported to University Police. If an affected student disagrees with the determination or action and is unable to resolve the matter to the mutual satisfaction of the student and the instructor, the student may have the matter reviewed through the university's grievance process (Student Academic Grievance Procedure).

Applicable Actions

A wide range of possible actions exists for cases of academic dishonesty. Instructors should take actions that are fair and equitable under the circumstances and should attempt to reach an understanding with the affected student on the imposition of an appropriate action. In some cases, the department, the college, or the university may also take actions independent of the instructor. Examples of possible actions include but are not limited to the following:

For instructors, programs, departments, and colleges:

Reprimanding the student orally or in writing.

Requiring work affected by the academic dishonesty to be redone.

Administering a lower or failing grade on the affected assignment, test, or course.

Removing the student from the course.

Recommending probation, suspension, or dismissal.

For the university:

The university may elect to place an affected student on probation or to suspend or dismiss the student and to place a temporary or permanent notation on the student's permanent academic transcript that he or she was suspended or dismissed due to academic misconduct.

The university may report an incident of academic misconduct to appropriate law enforcement officials and may prosecute an affected student if the act in question involves the commission of a crime (e.g., breaking into an office or building, stealing an examination, etc.).

Honor Code Office Involvement

The Honor Code Office will maintain a record of all violations of the Academic Honesty Policy reported to it by the faculty. If the occurrence is sufficiently egregious or if a pattern of dishonesty or misconduct is discovered, the Honor Code Office may take additional action on behalf of the university based upon the nature of the infraction(s). The Honor Code Office, in consultation with the involved academic personnel, including the associate academic vice president in charge of undergraduate studies, may determine to place a student on probation or to recommend that a student be suspended or dismissed for academic dishonesty and other forms of academic misconduct.

Shared Responsibility Policy Statement

Students are responsible not only to adhere to the Honor Code requirement to be honest but also to assist other students in fulfilling their commitment to be honest.

Faculty Academic Integrity

The substantive standards of academic honesty stated in this policy apply *a fortiori* to faculty. Indeed, all members of the BYU community are expected to act according to the highest principles of academic integrity.

Sources

A large number of publications and policies of colleges and universities were reviewed in creating BYU's Academic Honesty Policy. Some of the content and structure of this policy were adapted from the following sources:

1. "Academic Honesty," a brochure produced by the Office of Judicial Affairs, University of Florida.
2. "Academic Honesty and Dishonesty," a brochure produced by the Office of the Dean of Students, University of Delaware.

3. "Academic Honesty and Dishonesty," a brochure produced by the Dean of Students Office, Louisiana State University.
4. "A Statement on Plagiarism," a committee report from the October 1994 Conference on the Center for Academic Integrity, Tom Langhorne, Binghamton University (chair).
5. "Definition of Plagiarism," by Harold C. Martin, taken from *The Logic and Rhetoric of Exposition*, by Harold C. Martin, Richard M. Ohmann, and James H. Wheatly, 3rd ed. (New York: Holt, Rinehart and Winston, 1969).
6. *Legal Aspects of Plagiarism*, by Ralph D. Mawdsley (Topeka, Kansas: National Organization on Legal Problems of Education, 1985).
7. "Plagiarism—The Do's and Don'ts," a brochure produced by the Office of Student Judicial Affairs of the University of California—Davis.

Dress and Grooming Standards

The dress and grooming of both men and women should always be modest, neat, and clean, consistent with the dignity adherent to representing The Church of Jesus Christ of Latter-day Saints and any of its institutions of higher education.

Modesty and cleanliness are important values that reflect personal dignity and integrity, through which students, staff, and faculty represent the principles and standards of the Church. Members of the BYU community commit themselves to observe the following standards, which reflect the direction of the BYU Board of Trustees and the Church publication *For the Strength of Youth*. These guiding principles apply at all CES institutions of higher education. The application of these principles may vary slightly at the various institutions in accordance with local conditions and circumstances. (See separate institutional policies for more specific details on dress and grooming standards.) The Dress and Grooming Standards are as follows:

Men

A clean and well-cared-for appearance should be maintained. Clothing is inappropriate when it is sleeveless, revealing, or form fitting. Shorts must be knee-length or longer. Hairstyles should be clean and neat, avoiding extreme styles or colors, and trimmed above the collar, leaving the ear uncovered. Sideburns should not extend below the earlobe or onto the cheek. If worn, moustaches should be neatly trimmed and may not extend beyond or below the corners of the mouth. Men are expected to be clean-shaven; beards are not acceptable. Earrings and other body piercing are not acceptable. Shoes should be worn in all public campus areas.

Women

A clean and well-cared-for appearance should be maintained. Clothing is inappropriate when it is sleeveless, strapless, backless, or revealing; has slits above the knee; or is form fitting. Dresses, skirts, and shorts must be knee-length or longer. Hairstyles should be clean and neat, avoiding extremes in styles or colors. Excessive ear piercing (more than one per ear) and all other body piercing are not acceptable. Shoes should be worn in all public campus areas.

Residential Living Standards

As stated in the Honor Code, Brigham Young University is committed to providing a learning atmosphere consistent with the principles of the Church. The university is likewise committed to creating such an atmosphere for students residing on and off campus and between semesters. To achieve this, BYU has established living standards to help students learn some of the high ideals and principles of behavior expected at Brigham Young University. Therefore, the university requires students to adhere to the following applicable standards:

On-Campus Visiting Hours

Deseret Towers and Helaman Halls

Visitors of the opposite sex are permitted in the lobbies but not in the bedroom area, except during an established open house or home evening time, at which times room doors must remain open. Lobby visiting hours begin after 8:00 a.m. and extend until 12:00 midnight, Monday through Thursday and Saturday. On Friday night, lobby visiting hours extend until 1:30 a.m. Sunday hours are from noon until midnight.

Heritage Halls

Visitors of the opposite sex are permitted in the lobbies and apartment kitchens but not in bedrooms or bathrooms. Lobby visiting hours are from 8:00 a.m. to 12:00 midnight daily, Sunday through Thursday, and extend until 1:30 a.m. on Fridays. Apartment visiting hours are from 10:00 a.m. to 11:00 p.m. Sunday through Thursday and extend until 12:00 midnight on Friday and Saturday.

Off-Campus Visiting Hours

Visitors of the opposite sex are permitted in living rooms and kitchens but not in the bedrooms in off-campus living units. The use of the bathroom areas by members of the opposite sex is not appropriate unless emergency or civility dictates otherwise, and then only if the safety, privacy, and sensitivity of other residents are not jeopardized. Visiting hours may begin after 9:00 a.m. and extend until 12:00 midnight. Friday night visiting hours may extend until 1:30 a.m. Landlords may establish a shorter visiting period if proper notice is given to students.

Conduct

All students and residents shall be required to conduct themselves in a manner consistent with the BYU Honor Code, including abstaining from possessing, serving, or consuming alcoholic beverages, tobacco, tea, coffee, or harmful drugs. Involvement with gambling; pornographic, erotic, indecent, or offensive material; obscene or indecent conduct or expressions; disorderly or disruptive conduct; or any other conduct or action inconsistent with the BYU Honor Code is not permitted in student housing. All guests of students must comply with the Residential Living Standards while on the premises of university-approved housing.

Dress and Grooming Standards

All students and residents of university-approved housing are required to know the BYU dress and grooming standards and abide by them.

Maintaining the Standards

Students are expected to help their guests and other residents understand and fulfill their responsibility under the BYU Residential Living Standards and the BYU Honor Code. Violations of these standards may be reported to the Honor Code Office, 4440 WSC, (801) 422-2847, or the Off-Campus Housing Office, (801) 378-5066.

Continuing Student Ecclesiastical Endorsement

All enrolled continuing undergraduate, graduate, intern, and Study Abroad students are required to obtain a Continuing Student Ecclesiastical Endorsement for each new academic year. Students must have their endorsements completed, turned in, and processed by the Honor Code Office before they can register for fall semester or any semester thereafter. To avoid registration delays, endorsement should be submitted to the Honor Code

Office by March 15. Those applying to BYU should use the new-student Admissions Application Part 3 endorsement.

LDS students may be endorsed only by the bishop of the ward (1) in which they live and (2) that holds their current Church membership record.

Non-LDS students are to be endorsed by (1) the local ecclesiastical leader if the student is an active member of the congregation, (2) the bishop of the LDS ward in which they currently reside, or (3) the nondenominational BYU chaplain.

Requirements

Whether on or off campus or between semesters, all students are expected to abide by the Honor Code, which includes (1) the Academic Honesty Policy, (2) the Dress and Grooming Standards, and (3) the applicable Residential Living Standards.

LDS students must fulfill their duty in The Church of Jesus Christ of Latter-day Saints, attend Church meetings, and abide by the rules and standards of the Church on and off campus.

Students who are not members of The Church of Jesus Christ of Latter-day Saints are also expected to maintain the same standards of conduct. They are encouraged to participate in services of their preferred religion.

Withdrawn Ecclesiastical Endorsement

A student's endorsement may be withdrawn at any time if the ecclesiastical leader determines that the student is no longer eligible to receive it. Students without endorsements, except in unusual circumstances, must discontinue enrollment. Excommunication, disfellowshipment, or disaffiliation from The Church of Jesus Christ of Latter-day Saints results in the withdrawal of the student's endorsement. The decision to withdraw an endorsement may be appealed through the appropriate ecclesiastical channels and then, if appropriate, through a university review process via the Honor Code Office.

Admissions

Admissions Office
A-153 ASB
(801) 422-2507

All Applicants

Admissions Policy: Students of either sex and of any race, creed, religion, age, or national origin are accepted for admission to BYU provided they maintain ideals and standards in harmony with those of The Church of Jesus Christ of Latter-day Saints and meet the university's academic requirements. High standards of honor, integrity, and morality; graciousness in personal behavior; application of Christian ideals in everyday living; and abstinence from tobacco, alcohol, and harmful drugs are required of every student.

An applicant who is currently excommunicated or disfellowshipped from, on probation with, or voluntarily disaffiliated from The Church of Jesus Christ of Latter-day Saints is generally inadmissable until reinstated to full fellowship. Undergraduates who desire to appeal based on extenuating circumstances may obtain an application to be excepted from the implementing policy and procedures from the dean of Student Academic and Advisement Services, A-185 ASB. Graduate applicants may obtain these from the dean of Graduate Studies, B-380 ASB.

The University Admissions Committee may grant special exceptions to the institution's normal entrance requirements. Individuals desiring to petition an exception should contact the Admissions Office at (801) 422-2500.

Important Notice: When admission applications reach the maximum number allowed by the BYU Board of Trustees (even if this occurs before the semester or term deadline date), the Admissions Office will only consider applications for the next possible semester or term.

Social Security Number: Each applicant is requested to supply BYU with their social security number for identification purposes. The Admissions Office will assign an appropriate identification number to international students and any others not wishing to give their social security number. If students are applying for any kind of financial aid, however, the government will require the Admissions Office to collect their social security number. Numbers may be obtained at the nearest social security office or the local post office.

Full Disclosure: Failure to disclose and submit all documents required for admission, including transcripts from each institution in which the applicant has or is currently enrolled, or any falsification of information required for admission consideration may result in immediate suspension and loss of all credit earned at BYU.

Admissions Status and Academic Standing: Admissions status (admit or deny) and academic standing (good, warning, or probation) will be determined by the Admissions Committee. This review is for all applicants, including former BYU students.

Official Notice of Admissions Committee Action: Applicants will receive written notice of the official action taken by the Admissions Committee. (Oral communication does not constitute a valid offer of admission.) Admission can be granted only by the Admissions Office and not by any other BYU department. A letter of acceptance is valid only for the semester or term indicated. Students who wish to change the entry date specified in their letter of acceptance must request permission to do so from the Admissions Committee before the designated deadline for the entry date they desire.

Admission Deadlines: All materials must be received by the BYU Admissions Office on or before the deadline date for the semester or term in which the applicant intends to register. These dates are as follows:

Fall Semester
New freshman applicants: February 15
Transfer or former applicants: March 15

Winter Semester
All applicants: October 1

Spring Term
New freshman and all international applicants: February 15
Transfer or former applicants: March 15

Summer Term
New freshman applicants: February 15
Transfer or former applicants: March 15

International students are encouraged to submit application materials ***at least one month before the deadline dates listed.*** This will allow sufficient time for the preparation of visa documents.

Please note: The university president and the University Admissions Committee reserve the right to make exceptions to admission policy and guidelines as deemed appropriate.

New Freshman Applicants—U.S.

Application: The biographical/entry selection information (Parts 1 and 2), ecclesiastical endorsement (Part 3), seminary/institute recommendation (Part 4), high school information and official transcripts from each school attended (Part 5), and activities list and essays (Parts 6 and 7), are required of each applicant. Parts 1, 2, 6, and 7 of the application can be completed using the Internet. Parts 3, 4, and 5 can be downloaded off the Internet. The Web address is *www.ldsces.edu.*

Application Fee: A $25 one-time nonrefundable application fee must accompany all applications for admission. Checks or money orders should be made payable to Brigham Young University (do not send cash through the mail).

High School Graduation: Applicants should be graduates of fully accredited high schools. Those who complete their secondary education through the General Education Development Test (GED), home study, home school, or other programs will be reviewed individually by the Admissions Committee to determine admissibility. Additional information (achievement tests, personal interview, etc.) may be required as part of the application process.

High School Preparation: Students are encouraged to complete high school courses from the following list of college-preparation courses. Of particular importance are English and mathematics. Writing and math skills are basic for critical thinking. Students who perform well in Advanced Placement, International Baccalaureate (IB), and college preparatory classes enhance their possibility of admission.

Four years of English: composition, grammar, and courses that encourage "writing to learn."

Three to four years of mathematics (two or three years beyond algebra 1): geometry, intermediate algebra, precalculus, trigonometry, calculus.

Two years of laboratory science: chemistry, physics, biology, physiology, anatomy, genetics, botany, zoology.

Two years of history or government: U.S. history, U.S. constitution, U.S. government, Civil War, world history, medieval history, ancient history.

Two or more years of foreign language (advanced skill in one language is preferred).

Two years of literature or writing: Shakespeare, classics, mythology, American literature, creative writing.

Courses in computer science and the arts (music, drama, painting, etc.) can also be worthwhile. Students should be careful to take classes with substantial content that challenge them. In today's world typing and computer skills are valuable assets. These skills should be learned in high school or independently.

LDS Seminary: Students are encouraged to participate in LDS Seminary during each year of high school. Brigham Young University is committed to the concept that thoughtful and consistent study of the scriptures is vital to the preparation of those desiring to enter BYU. The number of years of LDS Seminary completed (released time, early morning, or home study) will receive additional consideration in admission decisions.

American College Test (ACT): All new freshman applicants and transfer students who have completed fewer than 30 semester (45 quarter) hours of college credit at the time of application are required to take the ACT. The ACT is administered nationally five times each year (October, December, February, April, and June). Students are encouraged to take the test during the last semester of their junior year in high school. The test should be taken early enough for the results to be in the Admissions Office before the deadline for the semester in which a student intends to enroll. Test results arrive at the university approximately four weeks after the test is given. Applicants must register for the ACT at least one month in advance of the test date. Registration materials can be obtained from most high school or college counseling offices or from the American College Testing Program, PO Box 414, Iowa City, IA 52243, (319) 337-1270.

Other Considerations for Admission: The Admissions Committee also considers applicants with special talent, exceptional creativity, or other unusual preparation for university study not otherwise revealed in standard admission data. In evaluating these criteria, the Admissions Committee relies on scholarship recommendations from a BYU department as a demonstration of the required talent, creativity, or unusual preparation. The Admissions Committee also uses Parts 6 and 7 (activities and essays) and Part 4 (seminary/institute recommendation) of the application in making an evaluation. The committee may also consider such matters as mission, military service, career choices, and personal circumstances.

Early Admission

High school students who would like to be considered for admission to Brigham Young University before high school graduation must:

1. Have a cumulative high school grade point average of 3.6 (B+) or higher on all work to date.
2. Achieve a composite ACT score of 27 or higher.
3. Submit a letter of unconditional recommendation for early admission from their high school counselor or principal. This letter must verify the student can no longer benefit from high school attendance since high school courses do not properly challenge and motivate the student. The counselor or principal must also state that the student is academically prepared and has the emotional and social maturity to benefit from attendance at BYU.
4. Submit a letter of unconditional recommendation for early admission from the applicant's parent or guardian.
5. Complete all application requirements (see application procedures for freshman applicants).

Application deadline dates for early admission are the same as for new freshman applicants.

Home School Applicants

Applicants who have been home schooled in lieu of attending a traditional high school environment must receive a composite ACT score of 27 or higher to be competitive for admission consideration. These individuals must also complete all other application requirements for freshman applicants.

Concurrent Enrollment at BYU

High school students who would like to be considered for admission to Brigham Young University as part-time students while still enrolled in high school must:

1. Have a cumulative high school grade point average of 3.6 or higher on all work to date.
2. Submit a BYU concurrent enrollment voucher signed by the applicant, the parent, and a high school counselor.
3. Have completed at least the junior year of high school.
4. Complete parts 1, 2, and 3 of the admission application.

Concurrent Credit Transfer Policy: Many students are now receiving enriched high school experiences by enrolling concurrently in college courses while completing their high school curricula. BYU will consider these students for freshman admission and scholarships provided they complete no more than 29 semester/44 quarter hours of concurrent work before enrollment at BYU. This means that they may receive consideration for BYU-sponsored Heritage Scholarships.

Students admitted to BYU who, before enrollment, complete 30 semester/45 quarter hours of concurrent course work or who enroll at a college or university other than BYU following high school graduation will be designated as transfer students. Their admission and scholarship status will be evaluated based on BYU's transfer student criteria. Such evaluation may result in the withdrawal of a previously awarded freshman scholarship.

College credit received for successfully completed AP examinations, IB examinations, CLEP examinations, or concurrent work taken at BYU is excluded from the 29 semester/44 quarter hours limit.

Concurrent course work that may receive credit at BYU includes:

1. College courses taken at a college or university campus.
2. College courses taken at extension centers.
3. College courses taken at high schools after regular hours.

Credit awarded by other institutions for classes taught in the high schools during the regular high school day will *not* transfer to BYU.

Transfer Applicants—U.S.

Application: The biographical/entry selection information (Parts 1 and 2), ecclesiastical endorsement (Part 3), and seminary/institute recommendation (Part 4) are required of each applicant. Parts 1 and 2 of the application can be completed using the Internet. Parts 3 and 4 can be downloaded off the Internet. The Web address is *www.ldsces.edu*.

Students with fewer than 30 semester hours (45 quarter hours) of transfer credit at the time of application must also submit official high school transcripts (Part 5), activities list and essays (Parts 6 and 7), and the results of the American College Test (ACT).

Application Fee: A $25 one-time nonrefundable application fee must accompany all applications for admission. Checks or money orders should be made payable to Brigham Young University (do not send cash through the mail).

Admissions Criteria: To be most competitive for admission, an applicant should earn a cumulative grade point average and a general education grade point average *above* the B+ range. In addition, the majority of the transfer course work should be general education subjects (English, math, history, science, etc.). It is recommended that students transfer before beginning their junior year of college. Additional consideration may be given to

applicants with special talent, exceptional creativity, or other unusual preparation for university study not otherwise revealed in standard admissions data. In evaluating these criteria, the Admissions Committee relies on scholarship recommendations from a BYU department as a demonstration of the required talent, creativity, or unusual preparation. The Admissions Committee may also consider such matters as completing an LDS mission, attending an LDS institute of religion, military service, major selection, and personal circumstances. Transfer students are encouraged to receive the associate degree before transferring to BYU.

Evaluation of Transfer College Credit: All college transcripts will be evaluated to determine admissibility of an applicant even if all or any of that credit is not accepted for transfer.

Factors that can affect the transfer of credit include:

1. The institution is accredited by one of the following regional associations or is an institution sponsored by The Church of Jesus Christ of Latter-day Saints.
   Middle States Association of Colleges and Schools
   New England Association of Colleges and Schools
   North Central Association of Colleges and Schools
   Northwest Association of Colleges and Schools
   Southern Association of Colleges and Schools
   Western Association of Colleges and Schools

   Credit from institutions that are candidates for accreditation by one of the associations will be reviewed on a case-by-case basis, but credit is generally not transferable.
2. Military courses are evaluated using the ACE recommendations in the upper-division baccalaureate category from the Guide to the Evaluation of Educational Experiences in the Armed Services.
3. Advanced Placement scores of 3, 4, 5, IB scores of 5, 6, or 7, and CLEP scores of 61 or higher (new scoring) or 610 or higher (old scoring). Credit will be awarded according to BYU standards.
4. Students transferring to Brigham Young University after having earned an associate of arts and/or sciences degree at another college will, with one exception, have all of their lower-division general education requirements completed by the associate degree. The one exception is the American Heritage requirement, which can be filled by completing specific courses at the transfer college. The Advanced Writing and the Advanced Language/Mathematics requirements, which are considered to be upper-division requirements, may be filled by completing specific courses at other colleges. Students who have questions about the completion of general education courses are invited to contact the BYU Admissions Office, (801) 422-2500, for further information.
5. Credit earned more than eight years before admission or readmission (including transfer credit) will be accepted to meet general education and university graduation requirements, as well as major requirements at the discretion of the university. Courses should be applicable to BYU general education and university graduation requirements as well as to major requirements. Furthermore, transfer courses with grades below C– will not be used to fill BYU general education requirements and in most instances will not fill major requirements.

   Note: Credit awarded by other institutions for classes taught in the high schools during the regular high school day will not transfer to BYU.

The BYU Admissions Office will determine the transferability of undergraduate credit to BYU. A written evaluation of transfer credits is mailed to each student by the Academic Advisement Office soon after the student is accepted for admission. The evaluation indicates which classes have transferred and will fill general education and university graduation requirements as well as major requirements.

Former Student Applicants

Students who interrupt their studies without processing a deferment form with the BYU Admissions Office must reapply for admission.

Application: The biographical information (Parts 1 and 2) and ecclesiastical endorsement (Part 3) are required of each applicant.

Transcript: Official transcripts from each school attended since the student's last enrollment at BYU must be provided and identified. Students will be evaluated for readmission based on their post-BYU transfer GPA and their BYU academic standing.

Transfer classes will be evaluated on a course-by-course basis. The course must be substantially equivalent to a BYU course, with a grade of B or higher, to apply toward appropriate university or major graduation requirements.

Clearance: All holds (i.e., financial, Honor Code) placed on the student's record by BYU must be cleared before the deadline for the application to be considered. Additionally, the student must reimburse BYU for any fees incurred to collect the student's past debts.

Note: International students must also provide proof of current finances.

Deferment

One Semester

BYU day students can interrupt their studies for one semester (fall or winter) by submitting a Continuing Student Enrollment and Scholarship Deferment Application. These forms are available at the BYU Admissions Office. Most fall/winter scholarships will be deferred to another semester or term(s) within the same academic year. Students planning to return to BYU in a different academic year must reapply for scholarships prior to established deadlines. Spring/Summer scholarships cannot be deferred.

LDS Missionary

Students wanting to serve an LDS mission can defer their admission status by submitting an LDS Mission Deferment form soon after the mission call has been received. Any unused portion of a university-awarded scholarship will also be deferred as long as all deferment requirements have been met.

Individuals who return home prior to completion of a full-term mission lose their admission and scholarship deferment and are generally not immediately admissible to BYU. In most cases there will be a period of six months between the time an individual returns and the time to be eligible to apply for admission and scholarship consideration. This period of time is provided to give the individual sufficient opportunity, before returning to the rigors of academic life, to address the issues or concerns that were the cause of the early mission release.

Missionaries who come home early due to medical circumstances and who receive an honorable release can apply for readmission prior to the six months requirement by providing a letter of recommendation from the attending professional (doctor, psychiatrist, etc.) regarding the applicant's readiness for the rigors of academic life.

International Student Applicants

Admissions Considerations: Criteria used by the university Admissions Committee to evaluate international students' admission to Brigham Young University are:

1. Academic performance
2. Level of education completed
3. TOEFL test results
4. ACT or SAT test scores (needed if student has two or more years of high school in U.S. or Canada)
5. Ability to finance desired education

6. Ecclesiastical endorsement

In addition to the above, factors considered in granting admission to international transfer students are the grades or marks of all previous university and college work. If the applicant has less than one year's work at a university, secondary school marks will also be reviewed.

An entering freshman student must send official documents showing all secondary school marks and final diploma. An official English translation of the documents is also required.

Application: The biographical/entry selection information (Parts 1 and 2), ecclesiastical endorsement (Part 3), seminary/institute recommendation (Part 4), activities list and essays (Parts 6 and 7), official transcripts, and financial information are required of each applicant. Parts 1, 2, 6, and 7 of the application can be completed using the Internet. Parts 3, 4, and 5 can be downloaded off the Internet. The Web address is *www.ldsces.edu*. TOEFL test results are required for nonnative English speakers, including U.S. citizens and permanent residents.

Application Fee: A $25 one-time nonrefundable application fee must accompany all applications for admission. This fee cannot be waived. Checks or money orders (U.S. funds drawn on U.S. banks) should be made payable to Brigham Young University (do not send cash through the mail).

American College Test (ACT) or Scholastic Aptitude Test (SAT) Scores: The results of these tests must be sent as part of the application materials. Test information can be obtained by writing to:

American College Test Information
PO Box 414
Iowa City, IA USA 52243
(319) 337-1270

or

Scholastic Aptitude Test
Educational Testing Service
Princeton, NJ USA 08540
(212) 713-8000

English: All nonnative English-speaking applicants must send official results of the TOEFL exam to BYU. Applicants need to have a total (computer) TOEFL score of 173 or higher, with no section score below 17. Paper-based test scores require a total score of 500 or higher, with no section score below 50. Tests must be on official international test dates. Institutional tests are not acceptable.

Bilingual students who are admitted to BYU must take an English diagnostic examination during the orientation period. Based on the results of the test, a student may be required to register for one or more specific English courses, designed to improve areas of low proficiency.

Registration and Completion Requirements: All international students in attendance must register for and complete at least 12 hours of daytime credit per semester (6 hours per term).

Official University Visa Policy: Applicants entering the United States on a B visa are ineligible to attend Brigham Young University. Students should not attempt to enter the United States to attend BYU as a full-time student without presenting a Form I-20 from BYU (Certificate of Eligibility), a valid passport, and a valid F-1 visa.

Note: All international students must report to International Services, 1351 WSC, (801) 422-2695, within one week after arrival on campus.

Graduate Nondegree Applicants

Applicants who have a baccalaureate degree who are interested in attending BYU as a graduate nondegree student should have at least a 3.0 (B) grade point average.

Registration for courses will be on a space-available basis. Applicants should complete an undergraduate application and attach a statement explaining the purpose in seeking enrollment and the courses to be taken. Applicants may not attend for more than one academic year and may not attend on a full-time basis. For application procedures, please refer to the preceding Transfer Applicants—U.S. and Former Student Applicants sections.

Note: International applicants (unless permanent residents of the United States) cannot attend BYU as nondegree students.

Second Degree (Second Major/ Additional Major)

Students who have already received a baccalaureate degree or higher from any institution, including BYU, are not eligible for admissions consideration to pursue another associate or baccalaureate degree or major.

Spring/Summer Visiting Student Program

This program is open specifically to high school graduates who will be actively pursuing a degree at another college or university. Non-BYU students who want the opportunity to be part of the university's community on a limited basis will need to fill out a Spring/Summer Visiting Student application. Admission and enrollment in the Spring/Summer Visiting Student Program does not in any way imply continued enrollment at BYU beyond summer term. Students wanting to pursue a degree at BYU must submit an application for undergraduate admission and meet the admissions criteria in effect at the time of application.

Advanced Placement (AP) Credit

Students who complete a full year of an AP subject and score 3 or higher on the AP test will receive a minimum 6 semester hours of college credit in that subject. Students completing a half year of an AP subject with a score of 3 or higher on the AP test will receive a minimum 3 semester hours of credit in that subject. AP credit posted to another institution's transcript is reevaluated based on BYU's standard. Most AP subjects fill a BYU general education graduation requirement and in some instances fill graduation requirements in the major.

International Baccalaureate (IB) Credit

Students who complete the International Baccalaureate examinations may receive college credit. An IB course at the subsidiary level will normally be given 3 hours of general credit. An IB course completed at the higher level may receive 6 hours of general credit and possibly fill a general education requirement.

College Level Examination Program (CLEP) Credit

BYU stopped giving credit for general exams in 2000. At this time, BYU does not give credit for subject exams either. CLEP credit posted to another institution's transcript is reevaluated based on BYU's standard.

Tuition and Fees

Cashiers' Office
D-155 ASB
(801) 422-7808

Students are expected to pay tuition and class fees by the first day of classes each semester or term. See the current class schedule for deadline dates. It is expected that students who fail to pay tuition by this day will discontinue their enrollment. Students who fail to pay tuition by the scheduled final day to register will jeopardize their eligibility to enroll for subsequent semesters or terms.

Any prior unpaid student account charges must be cleared before a new registration may be finalized. Tuition and fees payment must be tendered in U.S. dollars.

Once students register for classes, they are officially enrolled and committed to attend. Students who decide not to come must withdraw from classes prior to the first day of classes to avoid a tuition charge. Registration will remain on their record until discontinuance is accomplished.

Classes may be dropped on the Web registration system until midnight of the day before classes begin. On the first day of classes and thereafter students will need to contact the Discontinuance Office, B-150 ASB, (801) 422-7705. Those who do not drop their classes will retain them on their records and *will be charged tuition*. Tuition will be charged from the first day of classes to the date of discontinuance at the percentage rate listed under the Refund Rate Schedule that follows on the next page.

Students who anticipate receiving financial aid will be held responsible to pay tuition charges incurred whether or not financial aid is available or forfeited.

Students are responsible to determine their correct enrollment status for tuition charges. Questions regarding tuition and fee assessment should be addressed to the Tuition Office (D-151 ASB). The university reserves the right to change tuition and fees without notice.

The charge for noncredit courses or for auditing courses is the same as for credit courses. Noncredit courses taken by part-time students will be assessed on the basis of hours involved in lecture classes. For example, 3 hours of lecture a week would be considered 3 semester hours and would be charged for accordingly. Therefore, students taking 10 credit hours plus a noncredit class involving 2 or more lecture hours per week would be considered full-time students for tuition purposes only and be charged accordingly. For courses in which no lecture hours are involved—for example, dissertations and theses—tuition and fees will be based on hours being carried during the semester, as determined by the supervising professor.

Graduate students (for tuition assessment) are those who have received their first bachelor's degree (or will have received it by the beginning of the semester for which they are registering) and are not students of the Law School or the Graduate School of Management.

Full-time status (for tuition assessment) for all undergraduate students is registration for 12.0 or more credit hours per semester or for 6.0 or more credit hours per term.

Three-quarter-time status (for tuition assessment) for all undergraduate students is registration for 9 to 11.5 credit hours per semester or 4.5 to 5.5 credit hours per term. The tuition paid as a three-quarter-time student does not entitle the student to physical education suit and facility privileges.

Part-time status (for tuition assessment) for all undergraduate students is registration for 0.5 to 8.5 credit hours per semester or 0.5 to 4 credit hours per term. The tuition paid as a part-time undergraduate student does not entitle the student to health service, student activity privileges, or physical education suit and facility privileges.

Tuition and General Fees*

Per Semester (fall or winter)		Per Term (spring or summer)	
LDS	Non-LDS	LDS	Non-LDS
Undergraduate Students			
Full-Time			
$1,575	$2,370	$787	$1,185
Three-Quarter-Time			
$1,505	$2,245	$752	$1,122
Part-Time (per credit hour)			
$161	$243	$161	$243
Graduate Students (other than students in the Law School and Graduate School of Management)**			
Full-time			
$1,990	$2,985	$995	$1,492
Part-Time (per credit hour)			
$221	$332	$221	$332
Graduate School of Management and Law School Students			
Full-Time			
$3,255	$4,885	$1,627	$2,442
Part-Time (per credit hour)			
$362	$544	$362	$544

*A significant portion of the cost of operating the university is paid from the tithes of The Church of Jesus Christ of Latter-day Saints. Therefore, students and families of students who are tithe-paying members of the Church have already made a contribution to the operation of the university. Because others will not have made this contribution, they are charged a higher tuition, a practice similar in principle to that of state universities charging higher tuition to nonresidents.

**Non-degree-seeking students pay graduate tuition.

Tuition Adjustment—Status Change Between Part-, Three-Quarter-, and Full-Time

A full-time student dropping to three-quarter-time or part-time, or a three-quarter-time student dropping to part-time, or a part-time student who decreases credit hours may be eligible to receive a tuition refund. A refund request must be initiated by the student through the the Tuition Office (D-151 ASB). A full refund of the difference between full-time, three-quarter-time, and part-time assessment will be allowed until the scheduled last day for adding classes. Refunds for courses dropped after that date will

be subject to the refund rate schedule listed under Tuition Charge/Refund—Discontinuance.

Late Tuition Payment Fee

Late tuition payment fees will be assessed full-time, three-quarter-time, and part-time students for failure to pay tuition by scheduled deadlines. (See current class schedule for deadline dates.)

Semester
After last day to add classes $90

Term
After last day to add classes $45

Students whose tuition check is dishonored by the bank will be charged the late fee in effect at the time the check is redeemed.

Discontinuance—Tuition Charge/Refund

When a student officially discontinues from the university, a partial refund of tuition and fees paid may be appropriate. Any refund due will be paid by check, through the mail, approximately 10 days from the date on which the student requests discontinuance. Any unpaid university charges will be deducted from the refund amount.

Refunds will not be paid to students whose tuition has been paid by a loan, scholarship, or benefit.

If a student discontinues or drops below 6 credit hours (4 for graduate students) and has received a Stafford Loan, federal regulations require the school to return a portion of any institutional refund due the student to the lending institution through which the student received the loan.

Note: Late fees are nonrefundable.

The amount of the refund a student will receive is based on the date a student reports such discontinuance to the Discontinuance Office (B-150 ASB). The following rates apply to both tuition and class fee refunds:

Refund Rate Schedule

See current class schedule for specific dates.

	Tuition Charged	Tuition Refunded
Before first day of classes	None	100%
First week of classes	10%	90%
Second week of classes	15%	85%
Third week of classes	20%	80%
Fourth week of classes	25%	75%
Fifth week of classes	30%	70%
Sixth week of classes	35%	65%
Seventh week of classes	40%	60%
Eighth week of classes	45%	55%
Ninth week of classes	50%	50%
Tenth week of classes	55%	45%
Thereafter	100%	None

A petition for exception to the refund schedule will be considered for students forced to discontinue because of circumstances that are beyond their control, such as death in the immediate family, life-threatening situations, medical incapacitation, a university error, or military leave. Students should not submit petitions based on ignorance of university policies and procedures. These will be denied. Petition forms are in D-148 ASB.

Late fees are not refundable.

Refunds for Class Fees

Class fee refunds are based on the same schedule as listed for tuition refunds. Those with an asterisk (*) are exceptions to this schedule and must be applied for at the respective academic department.

Class Fees

Acc 200 ..... $20
Army ROTC Leadership Laboratory 40
CHum 98 25
CS 240 11
EcEn 240 11
FL&HE 110, 340 35
FL&HE 287, 397 30
*Geol 410 550
**Geol 490R, 590R ..... variable
ISys 100 25
Math 97 75
MCom 100 25
MilS 120, 121, 220, 221, 320, 321, 420, 421 40
Music 160R, 250, 260R, 360R, 460R, 560R, 660R 300
PAS 112 90
PE 116, 117 (bowling) 45
PE 150 (payable to skating rink) ..... variable
†PE 161, 162, 164 (skiing) 35
PE 175, 176, 177 ..... variable
RMYL 189, 244 80

*See department for a refund application.
**See department for a fee card.
†Student must also have equipment and purchase lift passes.

Student Teaching/Practicum Fees

CPSE 496R, 586R, 587R, 599R, 680R ..... variable
ECE 423, 424 30
ECE 425 55
ElEd 358, 362 20
ElEd 400, 496R 55
ScEd 476R, 496R 115

Because of pending changes in Utah State licensure fees, the student-teaching and practicum fees may be increased sometime in the 2003–2004 academic year.

Materials/Service Fees

Fee payment cards are available in the following classes for materials and services used:

CM 105, 155, 210, 211, 217, 241, 320, 411, 412, 426, 494R.
ECEn 212, 301R.
IT 104, 150, 231, 240, 328, 344, 347, 443, 447.
TTE 140, 150, 200, 209, 229, 250, 270, 300, 301, 400, 450, 490R, 593R.
TMA 285, 475R.
VA 133.
VAStu 104, 105, 106, 204R, 205R, 206R, 216, 217, 218, 219, 349R, 350R, 351R, 354R, 355R, 356R, 358R, 359R, 456R, 459R, 656R, 659R.

Miscellaneous Fees and Fines

Admission evaluation fee (nonrefundable) ..... $ 25
Bicycle registration (Provo City license) 1
Change of registration fee—per class (after add deadline) 10
Dishonored check charge 10
Duplicate activity card 10
Examination through Testing Center
(to exempt a student from taking a required class) 10
Examination, special equivalency,
nonrefundable fee to take exam 20
NDFS-dietetics insurance and ADA dues 48
Graduation fee (nonrefundable)
Bachelor's degree 15
Master's degree 20
Doctoral degree 25
Identification photo 3
Incomplete grade contract fee 10
National League of Nursing Diagnostic Exam 30
Physical education locker 5

Records search fee (Cashier's Office) 1
Spouse activity card (nonrefundable) per semester 6
Thesis binding (four copies) 11–15
Traffic violation fines, variable according to violation 5–300
Transcript fee (pay at Records Office) 2

Health Insurance Requirement

BYU requires all three-quarter- and full-time students (9 credit hours or more for a semester; 4.5 credit hours for a term) to carry adequate medical insurance. This applies the entire time a student has continuing status, including students taking a semester or term off. All participants in groups on tour, Study Abroad, or internships are required to carry adequate medical insurance.

Enrollment in the BYU Student Health Plan satisfies the university's insurance requirement, as does enrollment in a group medical plan provided by an employer or a spouse's or parent's employer. Any other medical insurance plan must meet the following requirements:

- provide at least 70 percent coverage for all major medical expenses, including physician, hospital, and ancillary services;
- have an individual annual deductible of no more than $500; and
- have an annual plan limit of no less than $25,000.

Three-quarter- or full-time students must enroll in the BYU Student Health Plan or provide verification of other adequate insurance coverage when first enrolling at BYU and prior to the beginning of fall semester each year thereafter. Students who do not return a properly completed waiver form to the BYU Insurance Office will be automatically enrolled in and assessed the appropriate premium (single or married student rate) for the BYU Student Health Plan. The insurance fee payment is due by the first day of class each semester and term.

For the latest insurance rates, check the Web site at *http://ar.byu.edu/dept_registration\tuitandfee.html#hir.*

Debt Collection Fees

Students' past-due debts are referred to Student Financial Services for collection, and a reasonable collecton fee is added to the student's account. If BYU is unable to collect the debt within a reasonable time, the debt may be referred to an outside collection agency and/or attorney for collection. All collection costs, including BYU's collection fee and any collection agency fees and/or attorney fees and court costs will be added to the student's debt and must be paid in full before the university will release the financial hold on the student's transcript, allow the student to register, or consider the student for readmission. Also, eligibility for graduation, participation in graduation ceremonies, and/or release of the diploma may be delayed or denied.

Estimated College Expenses

BYU offers a unique, high-quality university education in an atmosphere that nurtures spiritual growth and a strong testimony of the divinity of Jesus Christ, and educational expenses have been deliberately kept at a minimum. This is possible because of financial support from The Church of Jesus Christ of Latter-day Saints, which covers a significant portion of the university's total expenses. A single undergraduate student at BYU may expect the following approximate basic costs:

Fall Semester	Winter Semester	Spring Term	Summer Term
*Tuition and fees			
$1,575	$1,575	$787	$787
Board and room			
2,677	2,677	1,165	1,165
Books and supplies			
588	588	300	300
Personal expenses			
825	825	415	415
Transportation			
700	700	350	350
Totals			
$6,365	$6,365	$3,017	$3,017

*Tuition for non-LDS undergraduate students is $2,370 for each of the fall and winter semesters and $1,185 for each of the spring and summer terms.

On entering the university, students are responsible for making arrangements to cover enrollment expenses and should have sufficient funds on hand for at least the first semester. University financial aid is available to supplement savings only through one or more of the following programs: scholarships and awards, student loans, Pell Grants, and student employment.

Financial Aid and Scholarships

Financial Aid and Scholarship Offices
A-41 ASB
(801) 378-4104

Over the past decade the cost of obtaining an excellent university education has increased considerably. As a result, many students and their families have found it difficult to obtain the funds to pursue an education. The university is sensitive to this situation and to those students who are hard-pressed to finance their studies. Major changes have been made by the university to improve the delivery system through which students can receive financial aid. There is a firm commitment to assist those who truly need the resources to further their studies.

Financial aid at BYU comes from various federal, state, and university programs in the form of loans, scholarships, and grants. The Financial Aid and Scholarship Offices coordinate these financial aid programs and assist students in identifying the financial resources for which they might qualify. Because the number of students applying for financial assistance usually exceeds the funds available through university and federal programs, the distribution of financial aid at BYU is based on an assessment of the student and family's financial need. There are some exceptions to need-based awarding; e.g., BYU academic scholarships, performance and talent and athletic awards, and BYU short-term loans are not based on need.

The process of determining a student's eligibility for financial aid is called *need analysis.* In a need analysis, income and asset information from both student and parents is examined to determine the family's ability to contribute toward educational costs. This figure, called the *family contribution,* is subtracted from what it will cost the student to attend BYU for a specific length of time (typically, one academic year). If the cost of education is more than the family can contribute, the student has *financial need.*

BYU uses the government need analysis form, Free Application for Federal Student Aid (FAFSA), in determining how much the student and family should contribute. All students applying for financial aid must complete this form and the BYU Financial Aid Application. The application process is not complete until the results of the FAFSA have been received by the BYU Financial Aid Office.

Even though a standard formula is used to analyze a student's financial situation, the Financial Aid Office carefully considers the individual circumstances of each student applying for aid.

Applying for financial aid is complicated and time consuming. Considerable delays and frustrations can arise from filling out forms incorrectly or failing to submit the proper documents in a timely manner. Students and their parents are encouraged to read instructions carefully and to complete all forms and documents correctly. Professional counselors in the Financial Aid Office are available and eager to assist in answering questions and helping with the application process.

Eligibility Requirements

Any student who is admitted to BYU day school, who is in a degree-seeking program, and who is making satisfactory academic progress is eligible to apply for financial aid. Students who have their baccalaureate degree and are returning to receive a teaching certificate may also apply for financial aid if they have a 2.0 GPA and are admitted to the teacher licensure program. Applicants for federal financial aid (Pell Grants, Stafford Loans, and PLUS) must be U.S. citizens or eligible noncitizens. Contact the Financial Aid Office if you have any questions as to your eligibility.

Scholarships

Brigham Young University offers scholarships to select students who have demonstrated a serious and diligent commitment to spiritual preparation and academic excellence as an investment in their education. Scholarship funds are provided through the tithes of the LDS Church and the offerings of generous individuals. They are given to encourage continued commitment to spiritual and intellectual growth. The gift of a scholarship assumes an obligation on the part of the recipient to use that investment to prepare for expanded and purposeful service in the Lord's kingdom.

Although the contributions of the Church and others have been generous, our funds are still insufficient to invest in all students. Consequently, we have established policies and procedures to better ensure fairness in awarding available scholarship funds consistent with the university's aims and donors' wishes. For additional information about our policies and procedures, please contact the Scholarship Office, A-41 ASB, Provo, UT 84602-1009, telephone (801) 378-4104; e-mail: scholarships@byu.edu; URL: *http://ar.byu.edu/scholarships.*

Academic

The majority of BYU scholarships are awarded to students based on academic merit. After the scholarship application deadline, students are ranked by their academic preparation and performance. Beginning at the top of the ranked order, scholarships are awarded until funds are exhausted.

BYU scholarships are not renewable, and most are awarded for two semesters only. Unless students receive a four-year award, *they must reapply every year by the appropriate deadline to be considered.* Applicants must also officially declare a major by the end of their sophomore year.

Gordon B. Hinckley Presidential Scholarships are the most prestigious awards offered by Brigham Young University to incoming LDS freshman students. Named after the President of The Church of Jesus Christ of Latter-day Saints, this scholarship pays each recipient's tuition and an additional stipend for eight semesters of undergraduate work at Brigham Young University.

To be considered for this scholarship, students must have a minimum composite score of 33 on the ACT or a 1460 on the SAT. They must also have a minimum unweighted high school grade point average of 3.85. They will be required to submit a separate application, available upon request, by January 15, 2004.

Heritage Scholarships are eight-semester, full LDS tuition awards to incoming freshman students. These scholarships honor the intellectual, spiritual, and cultural heritage of the Church and the university.

National Merit Scholarships are eight-semester, full LDS tuition awards sponsored by BYU for a number of the incoming freshman students who qualify as finalists in this competition. To be considered, finalists must inform National Merit Corporation that BYU is their first-choice university. National Merit Corporation will then forward necessary materials to BYU. *Because funds are limited, finalists are not guaranteed a BYU-sponsored National Merit Scholarship.*

University Scholarships are generally two-semester awards that cover either half or full LDS tuition. Students must reapply each year to be considered for future scholarships.

New Freshman Students

Academic scholarships are based on an in-depth review of a student's academic preparation in high school. Generally, freshman scholarship recipients have ACT scores in the 30s and GPAs of at least 3.80.

New Transfer Students

Academic scholarships are evaluated according to academic performance at the previous institution(s). Generally, candidates must have a GPA of 3.80 or higher to be considered. Those transferring to BYU with fewer than 30 semester hours (45 quarter hours) of college credit will also be evaluated on their high school credentials.

Former Students

Academic scholarships are based on overall academic performance. Primary considerations include BYU and total grade point average and the number of hours completed per enrollment. Candidates will be considered in the same applicant pool as continuing students.

Continuing Students

Academic scholarships are based on overall scholastic performance. Primary considerations include BYU and total grade point average and the number of hours completed per enrollment.

Fall/Winter

The Scholarship Committee will consider the GPA earned at BYU through winter semester 2003 and course loads during previous enrollments. Generally, only full-time students are eligible. To qualify for an academic scholarship, both the BYU GPA and the cumulative GPA, including any transfer work, must be within the awarding range.

Spring/Summer

The committee will consider academic performance through fall semester 2003.

Alumni Association

Generations of BYU students have benefited from the generous support of the Church and private individuals. With that support they have received a first-rate education that has helped them "go forth to serve." Part of that service includes providing for the education of future generations.

The Alumni Replenishment Grants consider not only need and eligibility in its applicants but also a moral commitment to repay the amount of the grant, so that future students can receive and continue such financial assistance.

Alumni Association Replenishment

The Alumni Association Replenishment Grant is available to junior, senior, and graduate students whose total costs of education may not be met through other financial aid programs. Up to thirty scholarships are awarded annually in amounts equal to half or full LDS tuition. The scholarship recipients will be eligible for membership in the Society of Alumni Scholars and will be asked to replenish the fund once they are in a financial position to do so.

To be considered, both the cumulative and BYU GPA must be at least 3.0 by the end of winter semester 2003. Applicants must also demonstrate financial need and be willing to replenish the scholarship fund at a later date. To apply, complete the online scholarship application at *http://ar.byu.edu/scholarships*, including the Alumni Replenishment Grants section.

Alumni Association Regional Replenishment

Several regional chapters of the BYU Alumni Association offer scholarships to students whose permanent residence lies within their boundaries.

To apply, complete the online scholarship application at *http://ar.byu.edu/scholarships*, including the Alumni Regional Replenishment Grants section.

Athletic

The university awards grants-in-aid to outstanding athletes who qualify under the rules and regulations of the Mountain West Conference and the National Collegiate Athletics Association (NCAA).

Female Athletes

Applicants should contact the director of Women's Intercollegiate Athletics, 228-B SFH, Provo, UT 84602-2240, telephone (801) 422-4225, e-mail: female_athletes@byu.edu.

Male Athletes

Applicants should apply directly to the coach of the sport in which they wish to participate or the director of intercollegiate athletics, 106 SFH, Provo, UT 84602-2241, telephone (801) 422-2096, e-mail: male_athletes@byu.edu.

Jennie Clyde

The Jennie Clyde Scholarship is awarded to BYU students majoring in early childhood, elementary, or secondary education. Students minoring or specializing in special education may also apply. Recipients will be chosen on academic achievement, financial need, and demonstrated ability in the field of education. Candidates must complete a separate Jennie Clyde Scholarship Application (available from the David O. McKay School of Education Advisement and Certification Office, 120 MCKB), and the Free Application for Federal Student Aid (FAFSA).

College and Departmental

In addition to the scholarship programs described in this bulletin, other private scholarships are available through the colleges and some departments. Students can check with their college or department for additional information and applications.

Cultural Arts Awards

BYU offers cultural arts awards in the areas of communications, dance, music, theatre and media arts, and visual arts. For these awards, demonstrated talent is a more important criterion than scholastic achievement. Awards range in value from $100 to full tuition and fees for one year. For further information and application materials, contact the appropriate department directly:

Communications: Department of Communications, E-509 HFAC, Provo, UT 84602-6403, (801) 422-2997, e-mail: commsec@byugate.byu.edu.

Dance: Department of Dance, 294 RB, Provo, UT 84602-2005, (801) 422-5086, e-mail: dance@byu.edu.

Music: School of Music, C-550 HFAC, Provo, UT 84602-6410, (801) 422-4784, e-mail: music@byu.edu.

Theatre and Media Arts: Department of Theatre and Media Arts, D-581 HFAC, Provo, UT 84602-6405, (801) 422-6645, e-mail: tmasec@byugate.byu.edu.

Visual Arts: Department of Visual Arts, 210 BRMB, Provo, UT 84602-2500, (801) 422-2064, e-mail: design@byu.edu.

Disabled

Generous donors have established a few private scholarships to assist disabled students. Because funds are limited, the Undergraduate Scholarship Committee will consider the nature of the applicant's disability and its impact on his or her ability to function in class and earn a living. Academic performance and financial need will also be considered. Interested students must complete the scholarship application at *http://ar.byu.edu/scholarships*, the *Free Application for Federal Student Aid (FAFSA)*, and submit appropriate

current documentation of the disabling condition from a licensed professional to the University Accessibility Center, 1520 WSC, Provo, UT 84602, (801) 422-2767 v/tty.

Edwin Smith Hinckley and Abrelia Clarissa Seely Hinckley

The Edwin S. and Abrelia C. S. Hinckley Scholarships are directed to junior and senior students who have made a personal commitment to academic excellence and community service. Applicants must have junior or senior status, as determined by total number of earned credits, and a minimum 3.85 BYU and total grade point average, and they must demonstrate commitment to service. Candidates must complete the scholarship application at *http://ar.byu.edu/scholarships.*

International

The university offers a limited number of grants each year to international undergraduate students who demonstrate unusual financial need and strong potential for bringing positive recognition to BYU and the Church. Other selection criteria include the applicant's BYU and cumulative grade point average, extracurricular activities, service, and the likelihood of the applicant returning to his or her country. Eligible candidates must have an F-1 visa, have earned 24 credit hours at BYU, and be in good academic standing.

Generous friends of the university have established a few additional scholarships to assist international students with their studies. To apply, complete the online comprehensive scholarship application at *http://ar.byu.edu/scholarships.*

International Study Programs

The International Study Programs Office offers scholarships and grants to assist undergraduate students participating in its programs.

Study Abroad

- The *Mae Covey Gardner Scholarship* is available to students going on programs to European countries.
- The *Howard B. and Mary D. Nelson Scholarship* is available to students studying French, Italian, or Spanish and attending Study Abroad in France, Italy, or Spain. This scholarship is not available to returned missionaries who served in the destination country.
- The *Study Abroad Scholarship* is available to students participating in programs centered outside Europe.
- The *International Study Program Scholarship* is awarded to qualified students receiving university credit for field research or internships in an overseas setting.
- The *Jacobsen Service and Learning Scholarship* is available to students who enroll in an ISP program that has a strong service component.

All applicants must have a minimum 3.0 GPA. Applicants must show financial need by having a current *Free Application for Federal Student Aid (FAFSA)* on file at the Financial Aid Office, A-41 ASB, telephone (801) 378-4104. The Internet URL is *www.fafsa.ed.gov.* Students must complete the scholarship essay page of the ISP application and submit it with the rest of the application by the appropriate application deadline. For program applications, deadlines, and additional information, contact International Study Programs, 280 HRCB, Provo, UT 84602-4540; telephone (801) 378-3686; or visit our Web site at *http://kennedy.byu.edu/isp/.*

Jerusalem Center

The Jerusalem Center for Near Eastern Studies offers financial aid to undergraduate and graduate students participating in the various Jerusalem Center study programs. This financial aid is administered under the following categories:

Grants are awarded primarily on the basis of financial need. These grants will vary according to the length of the program, the applicant's financial need, and the funds available.

Scholarships are awarded primarily on the basis of academic performance and will vary as stated above. A minimum GPA of 3.70 is required to be considered.

For program applications, deadlines, and additional information, contact the Jerusalem Center Office, 309 HCEB, Provo, UT 84602-1524, telephone (801) 378-6017, e-mail: deborah_peterson@byu.edu.

Karl G. Maeser Scholarship

The Karl G. Maeser Scholarship is awarded to junior and senior students who have made a personal commitment to academic excellence. To be seriously considered, applicants must have a minimum 3.85 BYU and cumulative grade point average and demonstrate commitment to service. Candidates must complete the scholarship application at *http://ar.byu.edu/scholarships.*

Multicultural

Friends of the university have established scholarships for students of certain ethnicities. The majority of these funds are restricted to undergraduate students who are citizens of the United States. These scholarships are awarded on the basis of academic merit, demonstrated financial need, leadership ability, and other personal factors. For information about eligibility, deadlines, and applications, contact Multicultural Student Services, 1320 WSC, Provo, UT 84602-7908, telephone (801) 422-3065.

Native American

The Native American Educational Outreach Program offers scholarships to Native American students in graduate and undergraduate programs.

To be considered, applicants must be in good academic standing and demonstrate financial need. To apply, complete the online comprehensive scholarship application at *http://ar.byu.edu/scholarships.*

Need-Based

While the majority of its scholarships are merit-based, BYU budgets a limited number of need-based awards for United States citizens and permanent residents. Each applicant's circumstances and resources are reviewed and evaluated; unfortunately, there is always more need than available funding. Interested students must complete the *Free Application for Federal Student Aid (FAFSA)* and the comprehensive scholarship application at *http://ar.byu.edu/scholarships.*

Other Private

Generous friends of the university have contributed a number of private scholarships. Many of these scholarships carry specific stipulations and restrictions. To be considered for these scholarships, complete the online scholarship appliction at *http://ar.byu.edu/scholarships,* including the Additional Opportunities section.

Research

The following scholarships promote and reward research:

The *Undergraduate Scholarship Awards* are given to a select number of students, generally juniors and seniors, in good academic standing to fund research projects. To obtain the application instructions and guidelines, deadlines, and additional information, contact the Office of Research and Creative Work, A-261 ASB, Provo, UT 84602-1231, telephone (801) 422-3841.

The Joseph L. and Madeline B. Wirthlin Scholarship is awarded to one junior and one senior student each year who have an interest in pursuing a career in the attitudinal or survey research industry. To apply, complete the online scholarship application at *http://ar.byu.edu/scholarships*, including the Wirthlin Scholarship section.

Students should also contact their department and college to learn about other research opportunities and awards.

ROTC

Both the Army ROTC and the Air Force ROTC offer competitive scholarships to qualified students enrolling in their programs. ROTC scholarship recipients may receive full tuition, fees, books, and associated costs. In addition, both scholarship and nonscholarship students enrolled in courses numbered in the 300- and 400-series may apply for a $100 monthly subsistence allowance. For further information and application requirements, contact the Military Science Department (Army ROTC), 320 Wells ROTC Building, Provo, UT 84602-8301, telephone (801) 422-3601, e-mail: armyrotc@byu.edu; or the Aerospace Studies Department (Air Force ROTC), 380 Wells ROTC Building, Provo, UT 84602-8301, telephone (801) 422-2671, e-mail: afrotc@byu.edu.

General University Scholarship Policies

Students granted university scholarships must do the following to remain eligible for their award:

1. Abide by the Honor Code and adhere to the dress and grooming standards of BYU.
2. Scholarships may be applied to approved International Study Programs and Travel Study programs but may not be used for Independent Study or Continuing Education courses nor on other campuses.
3. Register as a full-time student and complete a minimum of 14 credit hours per the semester(s) or 6 credit hours per the term(s) of the award.

   Courses repeated within the same academic year will count only once toward the hour requirement.

   Credit must be earned within the classroom. Credit earned through special examination or Independent Study and audited classes may not be used to meet the requirement.

Additional provisions:

1. Undergraduate students who have acquired more than 160 hours of credit or who have received scholarships for a total of eight semesters, excluding spring and summer terms, are ineligible for future scholarships.
2. In any given semester or term, undergraduate students may receive in BYU scholarship assistance (including private funds donated to the university) no more than 80 percent of the Gordon B. Hinckley Scholarship stipend, which equals one and one-half times LDS tuition.

Discontinuance

A student claims a scholarship by registering for classes and using the scholarship to pay tuition. If the student then does not attend school or, once enrolled, discontinues for nonemergency reasons, the scholarship will be cancelled and the student will be billed for the appropriate tuition and discontinuance fees. Students who need to discontinue because of illness, injury, or extenuating circumstances should contact the Scholarship Office as well as the Discontinuance Office for appropriate action.

Note: Exceptions to these policies may sometimes be granted according to individual needs and circumstances. Students wanting an exception must submit a formal written petition to the Scholarship Office prior to the necessary change.

BYU Short-Term Loan

A short-term loan is available to full- or part-time day students or full-time evening students admitted to day school. A student may borrow up to the cost of tuition only, and because the loan is "short-term" the loan must be repaid during the same semester or term in which the money is borrowed. The loan is not available for Independent Study, job interviewing, or debt payments.

Federal Programs

Federal Pell Grant

A federal Pell Grant is awarded by the U.S. Department of Education and is based on financial need. A federal Pell Grant is not a loan and does not have to be repaid. Only undergraduate students who haven't already earned a bachelor's degree are eligible for a federal Pell Grant. (Students who pay graduate tuition are not eligible.) In addition, students must meet other eligibility requirements (see preceding Eligibility Requirements). Full-year federal Pell Grants are based on an eligibility index determined by a federal formula. Federal Pell Grant payments are disbursed to BYU students for only one semester at a time and vary with the number of hours for which a student is enrolled per semester (spring and summer terms combined are considered one semester).

- 12.0 or more semester hours equal a full-time payment.
- 9.0–11.5 semester hours equal a three-quarter-time payment.
- 6.0–8.5 semester hours equal a half-time payment.
- Fewer than 6.0 semester hours equal a less-than-half-time payment.

In determining hours for federal Pell Grant payments, please note that:

1. Audit hours, special courses and conferences, and hours obtained by challenging classes may not be used.
2. Continuing Education, Salt Lake Center, Study Abroad, and Travel Study classes, etc., may be used only during the term or semester for which the student is admitted to BYU day school.

Federal Subsidized Stafford Loan

A subsidized federal Stafford Loan is a low-interest, federally subsidized loan based on financial need. It is available to undergraduate and graduate students who meet the eligibility requirements (see preceding Eligibility Requirements) and the federal government requirements for need as calculated by the FAFSA. Subsidized federal Stafford Loan recipients must be enrolled in at least 6 credit hours per semester (or 3 credit hours per term) during the entire period of their loan. No audit hours, Independent Study hours, nor Conferences and Workshop hours may be used to meet the minimum hour requirement.

To avoid the burden of excessive debt, students should consider other forms of financial aid such as grants, scholarships, awards, part-time employment, and family assistance. Students should also contact their state educational agency to apply for state grants and other state aid that may be available. High school counselors and employers may also provide information regarding sources of financial aid. An unsubsidized federal Stafford Loan is also available to students who do not qualify for a fully subsidized federal Stafford Loan. Contact the Financial Aid Office for details.

Federal Parent Loan for Undergraduate Students (PLUS)

A federal PLUS Loan is an educational loan that parents may obtain to meet the educational expenses of their dependent children who meet the eligibility requirements above and are enrolled in at least 6 credit hours per semester (or 3 credit hours per term) during the entire loan period.

A federal PLUS Loan is neither need based nor federally subsidized. It requires credit approval by the lender. PLUS Loans must be disbursed to the school by Electronic Funds Transfer (EFT) or by checks made copayable to the parent and the school. Monthly payments generally begin sixty days after the loan is disbursed. A student may receive a federal PLUS Loan in addition to a federal Stafford Loan.

Federal Unsubsidized Stafford Loan

An unsubsidized federal Stafford Loan is an educational loan that students may obtain to meet their educational expenses. To be considered for an unsubsidized federal Stafford Loan, students must meet the eligibility requirements and be enrolled in at least 6 credit hours per semester (or 3 credit hours per term) for the entire loan period.

Although the unsubsidized federal Stafford Loan is neither need based nor federally subsidized, a student must first complete the FAFSA to determine eligibility for a federal Pell Grant or subsidized federal Stafford Loan. Payments generally begin sixty days after the loan is disbursed. A student may receive an unsubsidized federal Stafford Loan in addition to a subsidized federal Stafford Loan.

Satisfactory Academic Progress

Federal regulations require schools to establish, publish, and apply reasonable standards for determining whether a student receiving financial aid is maintaining satisfactory academic progress in his or her course of study. Two separate standards for measuring satisfactory academic progress are required: one is based on academic grades and the other is based on rate of progress toward a degree or certificate. In keeping with these regulations, Brigham Young University has established and will apply the following policies governing satisfactory academic progress for financial aid.

Evaluation Measures

Newly admitted students (both entering freshmen and transfer students) are eligible for financial aid during their first academic year at BYU. At the end of the first academic year, and at the end of each winter semester thereafter, the status of all students will be evaluated to determine if they are making satisfactory academic progress in each of these areas.

1. **Academic Standing:** Students who are on academic probation after winter semester will be ineligible for federal financial aid for the following academic year.
2. **Rate of Progress:** Students who fail to successfully complete at least 70 percent of the courses for which they register each academic year will be ineligible for financial aid for the following academic year. For purposes of this policy, the following are "nonprogress" grades: E, I, IE, NS, UW, W, and WE. Courses repeated in the same academic year are also nonprogress.

Students not meeting the 70 percent completion rate will remain ineligible for federal financial aid until they:

a. Improve their completion rate for the academic year to 70 percent, or
b. Successfully complete 12 hours (with no "nonprogress" grades) during regular terms or semesters at BYU, through Independent Study, or at another college or university.

Undergraduate students with over 180 total credit hours are generally ineligible for financial aid.

Appeals and Requalifying for Aid

Students may appeal to receive aid if there were unusual, extenuating circumstances that prevented them from making satisfactory academic progress. Possible reasons for an appeal might be accident or injury, medical or family emergency, or other similar circumstance.

Students may petition to receive aid for future semesters or terms in the same academic year, after improving their academic standing or rate of progress, as indicated above. Students requesting an override of the 180-hour limit must file a copy of their approved graduation plan with their appeal.

Important Tax Information

Under the Tax Reform Act of 1986, only scholarship, fellowship, benefit, and grant amounts used for tuition, fees, books, supplies, and equipment required for courses of instruction are excluded from the recipient's gross income. Any of these funds used for other expenses, such as room and board, must be included in income. If funds are received from any of these sources, a detailed record should be kept of all expenditures for tuition, fees, books, and required equipment and supplies. For more detailed information, consult a personal tax advisor.

Exception to University Financial Aid Policy

Students desiring an exception to University Financial Aid Policy must petition the Financial Aid Committee in writing, stating the reason for the requested exception. The committee meets on a regular basis to review petitions. Forms may be obtained from the Financial Aid Office, A-41 ASB, (801) 378-4104.

Additional Information Regarding Financial Aid

Students with questions regarding financial aid at Brigham Young University are invited to contact the Financial Aid Office, A-41 ASB, Provo, UT 84602-1009, (801) 378-4104.

Housing

Campus Accommodations Office
100 SASB
Phone: (801) 378-2611
Fax: (801) 378-6939
E-mail: housing@byu.edu
Internet: http://www.byu.edu/stlife/sas/hs

Quality residential living is an important, indeed an integral, part of the total educational experience at BYU, and students should carefully consider the accommodations available in view of the type of living experience they desire, the time they have available for activities within their housing situation, and their economic needs. Housing is available on campus and in the surrounding communities, and programs have been established within campus residence halls and with off-campus landlords to integrate living experiences with the total university educational program.

On-Campus Housing

On-campus housing includes room-and-board residence halls and apartment-style living for men and women, each directed by a competent resident adult, and family apartments. Assisting the hall advisor in room-and-board areas and the apartment-style living are several resident assistants—mature, advanced students who reside with the student group. Students are known personally by the staff and have someone available to assist with normal student problems.

The residence hall program is designed to provide experiences in self-government, sharing relationships, and other responsibilities that encourage maturity and independence.

All residents have access to CougarNet, which provides them with an e-mail address, Internet access, printing capabilities on campus network printers, file storage, and access to the library (BYLINE) and registration (AIM) databases.

Residence Halls for Men and Women

Board and room in **Helaman Halls** and **Deseret Towers** is provided for both men and women. Each hall contains student lounges; study rooms; shower and restroom areas; laundry and storage facilities. Reading and writing labs, as well as math and computer labs, are also provided in the central buildings and are staffed by teaching assistants. The central buildings for each complex feature spacious cafeterias, dining rooms, reception areas, offices, and mail service for the entire residence area. Recreational facilities include a swimming pool, sports courts, and large lawn areas.

Apartment Living for Men and Women

Heritage Halls provides apartment-style housing for both men and women. Most apartments have a combination kitchen-dining-study room, three bedrooms (designed for two people each), and a bath. Each building has a large lobby/living area, recreation room, laundry, and storage facilities. Apartments are furnished, except for bedding and kitchen items.

The Heritage Halls Central Building includes a resource center, staffed with specialists who are available to provide information and equipment for residents, and a computer lab, staffed by teaching assistants.

Residences for Families

Accommodations for 1,324 student families are provided at Wymount Terrace and Wyview Park, and each apartment is furnished with an electric or gas range, refrigerator, blinds, and garbage disposal. A limited amount of rental furniture is available from the Student Family Housing Office. Sports courts, access to the Deseret Towers and Helaman Halls swimming pools, children's playgrounds, and large lawn areas are also available. These apartments do not have washer/dryer hookups, but they do have self-service laundry facilities. A dairy products outlet is located at both Wymount Terrace and Wyview Park, and the Housing Office at Wymount Terrace has a computer lab.

Wymount Terrace is located on the northeast side of campus and has 898 one-, two-, and three-bedroom apartments. **Wyview Park** is located northwest of campus on University Avenue and has 426 two- and three-bedroom apartments.

Foreign Language Student Residence

The College of Humanities sponsors the Foreign Language Student Residence, located near the Missionary Training Center. Students pledge to speak only the foreign language in their apartment while they live and study together under the supervision of a faculty advisor and a native speaker.

All rooms are double rooms, and male and female students eat together, with the cost of some meals included in the fees. For details, write to the program coordinator of the Foreign Language Student Residence, 1102 JKHB, e-mail flsrdept@byu.edu.

Applications for Campus Housing

Students who plan to enroll at BYU and live in a university residence hall are advised to contact the Campus Accommodations Office (100 SASB) about a year in advance. As soon as the housing agreement is received, students should complete it, enclose the $50 housing application fee and $100 security deposit, and mail it back. The application fee is nonrefundable unless the student is not admitted to the university or campus housing. The *security deposit* is refundable (1) if the student is not admitted to the university or campus housing, (2) if cancellation is received before the deadline shown on the agreement, or (3) at the end of the agreement if there is no debt owing the university.

Agreements are processed according to the date they are received by the Campus Accommodations Office. Students should be prepared to live by the terms of the agreement once they have acquainted themselves with its terms, signed it, and returned it to the Campus Accomodations Office; this will avoid any possible misunderstanding or financial loss. Agreements are made for the academic school year.

For student family housing, the completed application must be returned with a nonrefundable $25 application fee. Placement into on-campus housing is made according to the date the application or agreement is received by the Campus Accommodations Office.

Acceptance to the University: Validation of any campus housing reservation is contingent on the student's official acceptance and admission to the university.

Time of Arrival: Residence halls are not open to students before the announced opening date, which is usually the day before Orientation begins. The university does not advise students who are going to live on campus to arrive before that date.

Off-Campus Housing

2170 WSC
(801) 378-5066
Internet: http://www.byu.edu/offcampushousing

Brigham Young University is committed to creating an atmosphere conducive to intellectual and spiritual development for all of its students, including those who live off campus. The BYU Off-Campus Housing Office was established to assist in this task by:

1. Aiding students in locating off-campus housing.
2. Encouraging landlords to maintain and improve rental facilities.
3. Advising and giving counsel to students and landlords in their relationships with one another.
4. Attempting to ensure that BYU living standards are maintained off campus.

To help achieve these ends, single BYU students are required to live in university-approved housing (see below). At present, more than 22,000 rental spaces have been approved by the university for single students living off campus. For further information concerning off-campus rentals and BYU regulations, contact the Off-Campus Housing Office between 8:00 a.m. and 5:00 p.m. Monday through Friday.

BYU Housing Referral Service

The BYU Off-Campus Housing Office maintains a complete referral service for all university-approved rental facilities. Thousands of rental units of all types are available, including large apartment complexes, condominiums, duplexes, houses, basement apartments, and sleeping rooms. Some housing for families is also listed, although family student housing is not subject to university approval.

Detailed lists of current vacancies are available at the Off-Campus Housing Office from 8 a.m. to 5 p.m. Monday through Friday. Listings are also available at our Web site (listed above). A guide with housing tips and essential rental data on the large apartment complexes will be mailed on request and may also be found at our Web site. Consultants are also available to help students who have problems finding suitable off-campus housing.

University-Approved Housing

All BYU students are required to provide the local address where they reside (not a post office box) as part of the registration process. Unless specifically excused by the Off-Campus Housing Office, all single BYU students are required to live in university-approved housing either on or off campus. The requirement may be waived by the Off-Campus Housing Office for the following students:

1. Single parents with children.
2. Single students living with parents.
3. Single students who are in graduate school or 25 years of age or older.
4. Under certain conditions, as determined by the Off-Campus Housing Office, the university housing requirement may be waived for other students who have a special circumstance or hardship.

Hotels, motels, and studio apartments are not approved housing for single students. A studio apartment is a living unit that does not provide a separate bedroom but combines the living and sleeping area.

Students who do not provide their local address or who live in housing not approved by the university and who are not excused by the BYU Off-Campus Housing Office are subject to the following sanctions:

1. Future registration may be stopped, current registration may be discontinued, and activity card privileges may be withheld until the student verifies that he or she is living in or will be living in university-approved housing.
2. Students falsifying their addresses will be subject to the above consequences as well as disciplinary action by the university for Honor Code violations.

When a student has contracted to live in a facility not approved by the university and has not been excused from the university housing requirement, these sanctions will be applied even though the student's tenancy extends beyond the current semester or term in which the student is enrolled. A student in this situation will have to either move from the unapproved housing unit, regardless of the consequences, or forego registration and other privileges at the university until complying with this policy.

The university approves off-campus living units whose owners have agreed to:

1. Adequately separate single men and women.
2. Exercise reasonable efforts to maintain the BYU Residential Living Standards.
3. Maintain the facilities in good repair.
4. Not abuse basic tenant rights.

The university cannot guarantee that owners and managers are employing their best efforts to maintain our standards, that all residents are complying with BYU standards, or that approved living units always meet our physical criteria. Thus, students are individually responsible to carefully choose an acceptable apartment and compatible roommates. Students should, of course, inform the BYU Off-Campus Housing Office if they suspect that the standards and the physical criteria are not being maintained.

Because a student's living environment has a profound influence on academic performance and spiritual growth, BYU promotes an environment in approved off-campus housing facilities that is consistent with its mission and with the moral virtues taught by The Church of Jesus Christ of Latter-day Saints. Specifically, the BYU off-campus housing program *sets guidelines* for landlords and students, which, if followed, will cultivate that desired moral climate. BYU off-campus housing personnel attempt to rectify any deviations from these standards and policy guidelines.

On Choosing a Major

1. Identify Areas You Want to Know and Understand

Success in a major depends on the right combination of interests, skills, efforts, and aptitudes. If you choose a major only because of its job possibilities and fail to look at your own interests and aptitudes, you will probably be disappointed. Broaden your horizons, explore what you find interesting—what excites you most.

2. Choose a Major on Criteria Other than Current Job Opportunities

Many college students, unfortunately, see college only as a vehicle for gaining economic security and mobility. Thus, they try to choose majors and a career on the basis of current job opportunities. Become educated, not merely trained.

3. Develop Flexibility and Adaptability

The only things you can really count on in the future are change and a continued knowledge explosion. Some futurists have estimated that today's high school graduates will be in five to seven different careers during their lifetime. Flexibility and adaptability, learning how to learn, and learning to think carefully and critically are the aims of a strong liberal arts education such as that available at BYU.

For some jobs, employers do not require a degree in a particular major. In these cases, employers respond favorably to applicants who have developed analytical skills, who have the ability to reason abstractly, and who have learned to communicate effectively.

Below are commonly asked questions followed by a list of resources where you can find answers. **Unless otherwise noted, you can access all of these resources through the Counseling and Career Center, 2500 WSC, (801) 422-6291.**

How Do I Choose a Major?

What majors are offered at BYU and what are their requirements?

- Career counseling.
- Career and Learning Information Center: 2590 WSC, (801) 422-2689.
- University Advisement Center: (801) 422-3826; e-mail: open_major@byu.edu.
- College advisement centers: See listing in current class schedule or the Directory section of this catalog.

How do I find out what majors best fit me?

- Career counseling.
- Career and Learning Information Center: 2590 WSC, (801) 422-2689.
- Counseling Center workshops.
- Student Development (StDev) 110, 115, 117: See current class schedule.

What kind of career opportunities are available in my major?

- Career and Learning Information Center: 2590 WSC, (801) 422-2689.
- Placement Center: 2400 WSC, (801) 378-3000.
- Campus departments.

What Do I Do When I Get Stuck?

Now that I've got my information, how do I make a decision?

- Career counseling.
- Student Development 115, 117: See current class schedule.
- Talk with an expert in the field: Contact that department.

I know what I want, but do I qualify?

- University Advisement Center: (801) 422-3826.
- Career counseling.
- Student Development (StDev) 110, 117: See current class schedule.
- College advisement centers: See listing in current class schedule or the Directory section of this catalog.

I Know My Major. Now What?

How do I find out my major requirements?

- Career and Learning Information Center: 2590 WSC, (801) 422-2689.
- College advisement centers: See listing in current class schedule or the Directory section of this catalog.

How do I declare my major?

- College advisement center for the major chosen: See listing in current class schedule or the Directory section of this catalog.

How Do I Prepare for Life after Graduation?

How do I find employment?

- Career counseling.
- Student Development (StDev) 317: See current class schedule.
- Placement Center: 2400 WSC, (801) 422-3000.
- College advisement centers: See listing in current class schedule or the Directory section of this catalog.

Do I want to consider further professional training?

- Career counseling.
- Student Development (StDev) 317: See current class schedule.
- Placement Center: 2400 WSC, (801) 422-3000.
- College advisement centers: See listing in current class schedule or the Directory section of this catalog.

Alphabetical List of Undergraduate Majors at Brigham Young University

Academic Programs and Degrees Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
Accounting—BS	School of Accountancy and Information Systems	Marriott School of Management
Acting—BFA	Theatre and Media Arts	Fine Arts and Communications
Actuarial Science—BS	Statistics	Physical and Mathematical Sciences
Agronomy—BS	Agronomy and Horticulture	Biology and Agriculture
American Studies—BA		Family, Home, and Social Sciences
Animation—BFA	Visual Arts; Theatre and Media Arts; School of Technology	Fine Arts and Communications; Engineering and Technology
Anthropology—BA	Anthropology	Family, Home, and Social Sciences
Anthropology (Sociocultural)—BA	Anthropology	Family, Home, and Social Sciences
Art—BFA	Visual Arts	Fine Arts and Communications
Art Education (K–12)—BA	Visual Arts	Fine Arts and Communications
Art History and Curatorial Studies—BA	Visual Arts	Fine Arts and Communications
Asian Studies—BA	International and Area Studies	International and Area Studies
Audiology and Speech-Language Pathology—BS	Audiology and Speech-Language Pathology	David O. McKay School of Education
Bio-Agribusiness Management—BS	Plant and Animal Sciences	Biology and Agriculture
Biochemistry—BS	Chemistry and Biochemistry	Physical and Mathematical Sciences
Bioinformatics—BS	Integrative Biology	Biology and Agriculture
Biology—BS		Biology and Agriculture
Biology Composite Teaching—BS	Integrative Biology	Biology and Agriculture
Biophysics—BS	Physiology and Developmental Biology	Biology and Agriculture
Biotechnology—BS	Plant and Animal Sciences	Biology and Agriculture
Botany—BS	Botany and Range Science	Biology and Agriculture
Chemical Engineering—BS	Chemical Engineering	Engineering and Technology
Chemistry—BA, BS	Chemistry and Biochemistry	Physical and Mathematical Sciences
Chemistry Education—BA	Chemistry and Biochemistry	Physical and Mathematical Sciences
Chinese—BA	Asian and Near Eastern Languages	Humanities
Civil Engineering—BS	Civil and Environmental Engineering	Engineering and Technology
Classical Studies—BA	Humanities, Classics, and Comparative Literature	Humanities
Clinical Laboratory Science—BS	Microbiology and Molecular Biology	Biology and Agriculture
Communications—BA	Communications	Fine Arts and Communications
Comparative Literature—BA	Humanities, Classics, and Comparative Literature	Humanities
Computer Engineering—BS	Electrical and Computer Engineering	Engineering and Technology
Computer Science—BS	Computer Science	Physical and Mathematical Sciences
Conservation Biology—BS	Botany and Range Science; Zoology	Biology and Agriculture
Construction Management—BS	School of Technology	Engineering and Technology
Dance—BA	Dance	Health and Human Performance
Dance Education—BA	Dance	Health and Human Performance
Dietetics—BS	Nutrition, Dietetics, and Food Science	Biology and Agriculture
Early Childhood Education—BS	Teacher Education	David O.McKay School of Education
Earth and Space Science Education—BA	Geology	Physical and Mathematical Sciences
Economics—BA, BS	Economics	Family, Home, and Social Sciences
Electrical Engineering—BS	Electrical and Computer Engineering	Engineering and Technology
Elementary Education—BS	Teacher Education	David O. McKay School of Education
Engineering Geology—BS	Geology	Physical and Mathematical Sciences
English—BA	English	Humanities
English Language—BA	Linguistics and English Language	Humanities
English Teaching—BA	English	Humanities
Environmental Soil Science—BS	Plant and Animal Sciences	Biology and Agriculture
Facilities Management—BS	School of Technology	Engineering and Technology
Family and Consumer Science Education—BS	School of Family Life	Family, Home, and Social Sciences
Family History–Genealogy—BA	History	Family, Home, and Social Sciences
Food Science—BS	Nutrition, Dietetics, and Food Science	Biology and Agriculture
Food Industry Management	Nutrition, Dietetics, and Food Science	Biology and Agriculture

Academic Programs and Degrees Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
French—BA	French and Italian	Humanities
French Teaching—BA	French and Italian	Humanities
General Studies—BGS	Bachelor of General Studies	Division of Continuing Education
Geographic Information Systems—BS	Geography	Family, Home, and Social Sciences
Geography—BS	Geography	Family, Home, and Social Sciences
Geography Teaching—BS	Geography	Family, Home, and Social Sciences
Geology—BS	Geology	Physical and Mathematical Sciences
German—BA	Germanic and Slavic Languages	Humanities
German Teaching—BA	Germanic and Slavic Languages	Humanities
Graphic Design—BFA	Visual Arts	Fine Arts and Communications
Health Science—BS	Health Science	Health and Human Performance
History—BA	History	Family, Home, and Social Sciences
History Teaching—BA	History	Family, Home, and Social Sciences
Home and Family Life—BS	School of Family Life	Family, Home, and Social Sciences
Humanities—BA	Humanities, Classics, and Comparative Literature	Humanities
Humanities Composite Teaching—BA	Humanities, Classics, and Comparative Literature	Humanities
Illustration—BFA	Visual Arts	Fine Arts and Communications
Industrial Design—BFA	School of Technology	Engineering and Technology
Information Systems—BS	School of Accountancy and Information Systems	Marriott School of Management
Information Technology—BS	School of Technology	Engineering and Technology
Integrative Biology—BS	Integrative Biology	Biology and Agriculture
International Relations—BA	International and Area Studies	International and Area Studies
Italian—BA	French and Italian	Humanities
Japanese—BA	Asian and Near Eastern Languages	Humanities
Japanese Teaching—BA	Asian and Near Eastern Languages	Humanities
Jazz Studies—BM	School of Music	Fine Arts and Communications
Korean—BA	Asian and Near Eastern Languages	Humanities
Landscape Management—BS	Plant and Animal Sciences	Biology and Agriculture
Latin American Studies—BA	International and Area Studies	International and Area Studies
Latin Teaching—BA	Humanities, Classics, and Comparative Literature	Humanities
Linguistics—BA	Linguistics and English Language	Humanities
Management—BS	Marriott School of Management	Marriott School of Management
Manufacturing Engineering Technology—BS	School of Technology	Engineering and Technology
Marriage, Family, and Human Development—BS	School of Family Life	Family, Home, and Social Sciences
Mathematics—BS	Mathematics	Physical and Mathematical Sciences
Mathematics Education—BA	Mathematics Education	Physical and Mathematical Sciences
Mechanical Engineering—BS	Mechanical Engineering	Engineering and Technology
Media Arts Studies—BA	Theatre and Media Arts	Fine Arts and Communications
Media Music Studies—BM	School of Music	Fine Arts and Communications
Microbiology—BS	Microbiology and Molecular Biology	Biology and Agriculture
Middle East Studies/Arabic—BA	International and Area Studies	International and Area Studies
Molecular Biology—BS	Microbiology and Molecular Biology	Biology and Agriculture
Music—BA	School of Music	Fine Arts and Communications
Music Composition—BM	School of Music	Fine Arts and Communications
Music Dance Theatre—BFA	Dance; School of Music; Theatre and Media Arts	Fine Arts and Communications; Health and Human Performance
Music Education—BM	School of Music	Fine Arts and Communications
Neuroscience—BS	Neuroscience Center	Biology and Agriculture
Nursing—BS	Nursing	Nursing
Nutritional Science—BS	Nutrition, Dietetics, and Food Science	Biology and Agriculture
Performance—BM	School of Music	Fine Arts and Communications
Philosophy—BA	Philosophy	Humanities
Photography—BFA	Visual Arts	Fine Arts and Communications
Physical Education—BS	Physical Education	Health and Human Performance
Physical Science Teaching—BS	Teacher Education	David O. McKay School of Education
Physics—BS	Physics and Astronomy	Physical and Mathematical Sciences
Physics, Applied—BS	Physics and Astronomy	Physical and Mathematical Sciences
Physics-Astronomy—BS	Physics and Astronomy	Physical and Mathematical Sciences
Physics Teaching—BA	Physics and Astronomy	Physical and Mathematical Sciences
Physiology and Developmental Biology—BS	Physiology and Developmental Biology	Biology and Agriculture
Plant Biology—BS	Plant and Animal Sciences	Biology and Agriculture
Political Science—BA	Political Science	Family, Home, and Social Sciences
Portuguese—BA	Spanish and Portuguese	Humanities
Psychology—BS	Psychology	Family, Home, and Social Sciences

Academic Programs and Degrees Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
Range Science—BS	Botany and Range Science	Biology and Agriculture
Recreation Management and Youth Leadership—BS	Recreation Management and Youth Leadership	Health and Human Performance
Russian—BA	Germanic and Slavic Languages	Humanities
Scouting Education—BS	Recreation Management and Youth Leadership	Health and Human Performance
Social Science Teaching—BS	Teacher Education	David O. McKay School of Education
Social Work—BS	School of Social Work	Family, Home, and Social Sciences
Sociology—BS	Sociology	Family, Home, and Social Sciences
Sound and Recording Technology—BM	School of Music	Fine Arts and Communications
Spanish—BA	Spanish and Portuguese	Humanities
Spanish Teaching—BA	Spanish and Portuguese	Humanities
Spanish Translation—BA	Spanish and Portuguese	Humanities
Special Education—BS	Counseling Psychology and Special Education	School of Education
Statistics—BS	Statistics	Physical and Mathematical Sciences
Technology Teacher Education—BS	School of Technology	Engineering and Technology
Theatre Arts Education—BA	Theatre and Media Arts	Fine Arts and Communications
Theatre Arts Studies—BA	Theatre and Media Arts	Fine Arts and Communications
Urban, Rural, and Environmental Planning—BS	Geography	Family, Home, and Social Science
Visual Arts—BA	Visual Arts	Fine Arts and Communications
Wildlife and Wildlands Conservation—BS	Integrative Biology	Biology and Agriculture

Alphabetical List of Undergraduate Minors at Brigham Young University

Minors Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
Advertising Design	Visual Arts	Fine Arts and Communications
Aerospace Studies	Aerospace Studies (Air Force ROTC)	Marriott School of Management
African Studies	International and Area Studies	International and Area Studies
Ancient Near Eastern Studies	International and Area Studies	International and Area Studies
Anthropology	Anthropology	Family, Home, and Social Sciences
Arab-Islamic Studies	International and Area Studies	International and Area Studies
Arabic	Asian and Near Eastern Languages	Humanities
Art	Visual Arts	Fine Arts and Communications
Art Education	Visual Arts	Fine Arts and Communications
Art History and Curatorial Studies	Visual Arts	Fine Arts and Communications
Asian Studies	International and Area Studies	International and Area Studies
Astronomy	Physics and Astronomy	Physical and Mathematical Sciences
Audiology and Speech-Language Pathology	Audiology and Speech-Language Pathology	David O. McKay School of Education
Ballroom Dance	Dance	Health and Human Performance
Chemistry	Chemistry and Biochemistry	Physical and Mathematical Sciences
Chemistry Education	Chemistry and Biochemistry	Physical and Mathematical Sciences
Chinese	Asian and Near Eastern Languages	Humanities
Chinese Studies	International and Area Studies	International and Area Studies
Chinese Teaching	Asian and Near Eastern Languages	Humanities
Classical Studies	Humanities, Classics, and Comparative Literature	Humanities
Coaching and Teaching Physical Education	Physical Education	Health and Human Performance
Communications	Communications	Fine Arts and Communications
Computer Science Teaching	Computer Science	Physical and Mathematical Sciences
Computers and the Humanities	Linguistics and English Language	Humanities
Computing and Information	Physical and Mathematical Sciences	Physical and Mathematical Sciences
Driver Safety Education	Health Science	Health and Human Performance
Economics	Economics	Family, Home, and Social Sciences
Editing	Linguistics and English Language	Humanities
Elementary Physical Education	Physical Education	Health and Human Performance
English	English	Humanities
English Teaching	English	Humanities
Family History—Genealogy	History	Family, Home, and Social Sciences
Folk Dance	Dance	Health and Human Performance
Food Science	Nutrition, Dietetics, and Food Science	Biology and Agriculture
French	French and Italian	Humanities
French Studies	International and Area Studies	International and Area Studies
French Teaching	French and Italian	Humanities
Geographic Information Systems	Geography	Family, Home, and Social Sciences
Geography	Geography	Family, Home, and Social Sciences
Geography Teaching	Geography	Family, Home, and Social Sciences
Geology	Geology	Physical and Mathematical Sciences
Geology Teaching	Geology	Physical and Mathematical Sciences
German	Germanic and Slavic Languages	Humanities
German Studies	International and Area Studies	International and Area Studies
German Teaching	Germanic and Slavic Languages	Humanities
Gerontology	School of Family Life	Family, Home, and Social Sciences
Health Education	Health Science	Health and Human Performance
Hebrew	Asian and Near Eastern Languages	Humanities
History	History	Family, Home, and Social Sciences
History Teaching	History	Family, Home, and Social Sciences
Humanities	Humanities, Classics, and Compartive Literature	Humanities

Minors Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
Information Technology	School of Technology	Engineering and Technology
International Development	International and Area Studies	International and Area Studies
Italian	French and Italian	Humanities
Italian Studies	International and Area Studies	International and Area Studies
Japanese	Asian and Near Eastern Languages	Humanities
Japanese Studies	International and Area Studies	International and Area Studies
Japanese Teaching	Asian and Near Eastern Languages	Humanities
Jewish Studies	International and Area Studies	International and Area Studies
Korean	Asian and Near Eastern Languages	Humanities
Korean Studies	International and Area Studies	International and Area Studies
Language and Computers	Linguistics and English Language	Humanities
Latin American Studies	International and Area Studies	International and Area Studies
Latin Teaching	Humanities, Classics, and Comparative Literature	Humanities
Linguistics	Linguistics and English Language	Humanities
Logic	Philosophy	Humanities
Management	Marriott School of Management	Marriott School of Management
Manufacturing	School of Technology	Engineering and Technology
Marriage, Family, and Human Development	School of Family Life	Family, Home, and Social Sciences
Mathematics	Mathematics	Physical and Mathematical Sciences
Mathematics Education	Mathematics Education	Physical and Mathematical Sciences
Media Arts Studies	Theatre and Media Arts	Fine Arts and Communications
Microbiology	Microbiology and Molecular Biology	Biology and Agriculture
Military Science	Military Science (Army ROTC)	Marriott School of Management
Modern Dance	Dance	Health and Human Performance
Modern Near Eastern Studies	International and Area Studies	International and Area Studies
Molecular Biology	Microbiology and Molecular Biology	Biology and Agriculture
Music	School of Music	Fine Arts and Communications
Native American Studies	History	Family, Home, and Social Sciences
Nutrition	Nutrition, Dietetics, and Food Science	Biology and Agriculture
Philosophy	Philosophy	Humanities
Physics	Physics and Astronomy	Physical and Mathematical Sciences
Physics Teaching	Physics and Astronomy	Physical and Mathematical Sciences
Political Science	Political Science	Family, Home, and Social Sciences
Political Science Teaching	Political Science	Family, Home, and Social Sciences
Portuguese	Spanish and Portuguese	Humanities
Psychology	Psychology	Family, Home, and Social Sciences
Psychology Teaching	Psychology	Family, Home, and Social Sciences
Russian	Germanic and Slavic Languages	Humanities
Russian Studies	International and Area Studies	International and Area Studies
Russian Teaching	Germanic and Slavic Languages	Humanities
Scandinavian Studies	Center for Language Studies	Humanities
Sociology (General)	Sociology	Family, Home, and Social Sciences
Sociology Teaching	Sociology	Family, Home, and Social Sciences
Spanish	Spanish and Portuguese	Humanities
Spanish Studies	International and Area Studies	International and Area Studies
Spanish Teaching	Spanish and Portuguese	Humanities
Statistics	Statistics	Physical and Mathematical Sciences
TESOL	Linguistics and English Language	Humanities
TESOL (K–12)	Linguistics and English Language	Humanities
Theatre and Media Arts Design	Visual Arts	Fine Arts and Communications
Theatre Arts Education	Theatre and Media Arts	Fine Arts and Communications
Theatre Studies	Theatre and Media Arts	Fine Arts and Communications
Travel and Tourism Studies	Geography	Family, Home, and Social Sciences
Western American Studies	International and Area Studies	International and Area Studies
Women's Studies	Women's Research Institute	Family, Home, and Social Sciences

Registration

Registration Office
B-130 ASB
(801) 422-2824

Who May Register?

Students are eligible to register if they are either continuing BYU students or new students who have received a letter of acceptance from the Admissions Office for the semester they wish to attend.

Continuing student status ends if a student does not complete day school classes the previous full semester (fall or winter) or if a student has graduated from BYU. Students who have lost continuing student status must be readmitted by the Admissions Office (A-153 ASB) before registration materials will be processed.

An individual who has disaffiliated from The Church of Jesus Christ of Latter-day Saints or has been excommunicated or disfellowshipped is not eligible for enrollment at Brigham Young University until he or she is once again in good standing in the Church. If a current student disaffiliates or is excommunicated or disfellowshipped from the Church, the Continuing Ecclesiastical Endorsement is always immediately withdrawn, and the student is discontinued. Every student must have a current Continuing Ecclesiastical Endorsement for continued enrollment.

The Registration Process

Complete registration instructions and deadlines are listed in the current class schedule for each semester or term. New students receive a current class schedule in the mail, and continuing students may buy one at the BYU Bookstore or the Registration Office.

Registration is based on a priority system (fall and winter semesters only) that allows students to begin registration according to their class standing or number of completed hours. Priority begins with graduate students and seniors, then juniors, sophomores, and freshmen. Non-degree-seeking graduates will be given access after continuing freshmen. Newly admitted freshmen will register together in a separate priority.

All eligible students will receive a Registration Notice via e-mail or mail for fall and winter semesters that will inform students of their beginning registration times. Following the instructions in the current class schedule, students may begin registering for fall semester in April and for winter semester in October.

Spring and summer term registration will not be based on a priority system. Schedules become available sometime in December, and eligible students can register for spring and summer terms beginning in February. Students have continuous access to the registration system. However, once school begins some classes must be added with an instructor's signature.

A Tuition Billing Statement with a listing of classes will be mailed to each student who has registered for at least one class by mid-August for fall semester, mid-December for winter semester, mid-April for spring term, or mid-June for summer term. The tuition payment deadline is September 15 for fall semester 2003, January 16, 2004, for winter semester 2004, May 4 for spring term 2004, and June 28 for summer term 2004. Beginning the first day of school, students may register for their classes by following the adding and dropping procedures outlined below.

Late Tuition Payment

Students who fail to pay by the tuition payment deadline will be assessed a late fee. For fall and winter semesters the late tuition fee is $90. For spring and summer terms the fee is $45 (effective after the tuition deadline).

Adding and Dropping Classes

Students may use the Web registration system to add and drop classes until the add deadline. Each academic department determines how classes are added. The add method of each class is noted in either the current class schedule or on the Web registration system with an **O** (Web registration system from five to ten days into the semester or from three to six days into the term), **S** (can only be added through the department), or **F** (Web registration system until classes start—instructor signature thereafter).

To add a class that requires a signature:

1. Obtain a change of registration (add/drop) card from the Registration Office, a college advisement center, or a department.
2. Obtain a signature of approval from the instructor or department as shown in the current class schedule.
3. Take the add card to the Registration Office during the first ten school days of a semester (first six days of a term).
4. For classes not officially added before the add deadline, petition for acceptance through the Registration Office (B-150 ASB) and pay a $10 fee per class.

To drop a class once school begins:

1. Use the Web registration system during the add period (first 10 class days of a semester or first six days of a term). Drop cards are also accepted.
2. From the third week of classes through the fifth week (seventh through thirteenth day of a term) pay the fees at the Cashiers' Office in the ASB and return the card to the Registration Office (B-130 ASB). A W will appear for classes dropped during this time.
3. To drop a class after the drop deadline, petition for acceptance through the Registration Office (B-150 ASB) and pay a $10 fee per class.

Note: A student can be registered for more than one section of an R-suffix course and therefore must drop each unwanted section.

Full-, Three-Quarter-, or Part-Time Status

A student who registers for 12 or more credit hours a semester or 6 or more credit hours a term is full-time for tuition purposes. Registration for 9 to 11.5 credit hours per semester or 4.5 to 5.5 credit hours per term is deemed three-quarter-time for tuition purposes. Registration for 0.5 to 8.5 credit hours a semester (0.5 to 4 credit hours a term) gives the student part-time status. International students and students receiving financial assistance may be required to register for more hours to be considered full-time.

Verification of Full-Time Status for Graduate Students

Graduate students (master's and doctoral students) who are enrolled for at least 2 credit hours per semester and who can be certified by their department as being engaged full-time in pursuit of their degrees can petition for graduate full-time status. Requests for such an exception should be directed to the Office of Graduate Studies.

Withdrawal from Classes

Students who choose to withdraw from (drop) a class must do so officially. Students who do not officially withdraw before the published deadline will receive a failing grade. Refer to the current class schedule for the appropriate procedure and deadlines and fees.

Auditing Classes

Students who wish to audit a class (take a course without receiving any credit for it) must add the class, listing it as an audit course, on an add/drop card within the first ten class days of a semester or the first six class days of a term. Audited classes do not appear on transcripts and do not count for verification purposes. *Students must be officially enrolled either for credit or audit to be eligible to attend class.*

Class Preparation Time

The expectation for undergraduate courses is three hours of work per week per credit hour for the average student who is appropriately prepared; much more time may be required to achieve excellence. These three hours may include one hour of lecture plus two hours of work outside class, three hours in a laboratory with little outside work, or any other combination appropriate to a particular course.

Maximum Hours per Semester/Term

An undergraduate student in good standing may register for as many as 18 credit hours in any one semester (9 per term) by following the regular registration procedure. Once school begins the college advisement center may authorize a student who has demonstrated superior academic ability to register for a maxiumum of 21 hours per semester (11 per term). Registering for classes through Continuing Education or auditing classes constitutes a part of the total registration. Through a petition process after the first day of school, exceptions to these rules may be granted by the university registrar (B-150 ASB).

Final Examinations

The university schedules reading and examination periods. An examination period occurs at the end of each semester and term. The examination period is preceded by reading days, which give time for conscientious review, study, and synthesis of the semester's work. The reading and the examination periods are firmly scheduled parts of the semester; students must not make plans that interfere with these important academic activities. Students may not take final examinations early. If illness or other uncontrollable circumstances prevent a student from taking an examination at the scheduled time, that student is responsible to inform the class instructor as soon as possible.

The instructor may give the grade *Incomplete* for nonacademic extenuating circumstances occurring after the nonacademic emergency (NAE) deadline. The incomplete cannot be given unless the student and instructor together prepare a contractual agreement (see Grading and Records section of this catalog for further information.) In cases where a student has conflicting examinations or more than three examinations in one day, individual arrangement for alternative test times may be made by the instructor.

Registration Holds

The university may place a hold on a student's records that will block registration privileges. The hold will be indicated on the registration system. It is the student's responsibility to contact the appropriate office to clear any holds before attempting to register for classes.

Academic standards:
Academic Support Office (801) 422-2723

Ecclesiastical endorsement:
Honor Code Office (801) 422-2847

Financial status (prior balance):
Student Accounts (801) 422-5415

Graduate school:
Office of Graduate Studies (801) 422-4091

Loans:
Collections Office (801) 422-7648
Financial Aid Office (801) 378-4104

Advisement centers (CAC holds):
Biology and Agriculture (801) 422-3042
Education (801) 422-3426
Engineering and Technology (801) 422-4325
Family, Home, and Social Sciences (801) 422-3541
Fine Arts and Communications (801) 422-3537
Health and Human Performance (801) 422-3638
Humanities (801) 422-4789
International and Area Studies (801) 422-3548
Marriott School of Management (801) 422-4285
Nursing (801) 422-4173
Physical and Mathematical Sciences (801) 422-2095
University (801) 422-3826

Academic Standards

Academic Support Office, 2500 WSC, (801) 422-2723

A student's academic standing at BYU is determined according to the grades that the student earns at **BYU.** The following outline shows the conditions and expectations according to the student's academic standing.

ACADEMIC STANDING		UNDER THESE CONDITIONS	EXPECTATIONS
GOOD	GOOD	When the most recent semester/term GPA and the BYU cumulative GPA are 2.0 or above and the student has NOT been on Probation or Suspension standing in the past	The student continues to maintain a BYU cumulative GPA of 2.0 or higher until graduation.
GOOD	PREVIOUS	The same as Good standing but distinguishes students who have been on Probation or Suspension standing in the past.	The student continues to maintain a BYU cumulative GPA of 2.0 or higher until graduation. The student will go directly to Probation if in the future he or she has a semester or term GPA below 2.0.
WARNING	WARNING **Includes** a registration block.	When the most recent semester/term GPA is below 2.0 and the student has NOT been on Probation or Suspension standing in the past. OR When the most recent semester/term GPA is 2.0 or higher but the BYU cumulative GPA is below 2.0 and the student has NOT been on Probation or Suspension standing in the past.	The student contacts the Academic Support Office to review academic standing. The student is blocked from registrations beyond the subsequent semester/term until he or she EITHER submits a complete Faculty Mentor Support Form to the Academic Support Office by the appropriate deadline OR earns at least a 2.0 GPA for the subsequent enrollment and has at least a 2.0 cumulative GPA. Students with less than a 2.0 cumulative GPA must submit the Faculty Mentor Support Form.
PROBATION	PROBATION **Includes** a registration block.	When the most recent semester/term GPA is below 2.0 and the student was on Warning standing. OR When the most recent semester/term GPA is below 2.0 and the student was on Previous standing. OR When the most recent semester/term GPA is 2.0 or higher but the BYU cumulative GPA is below 2.0 and the student was on Probation standing.	The student contacts the Academic Support Office to review academic standing. The student is blocked from registrations beyond the subsequent semester/term until he or she EITHER submits a completed Faculty Mentor Support Form to the Academic Support Office by the appropriate deadline OR earns at least a 2.0 GPA for the subsequent enrollment and has at least a 2.0 cumulative GPA. Students with less than a 2.0 cumulative GPA must submit the Faculty Mentor Support Form. Students on Probation who earn less than a 2.0 GPA for a semester or term are suspended. **Note:** Students receiving university or federal financial aid must also contact the Financial Aid Office, A-41 ASB, (801) 378-4104. Students on Probation are usually not eligible for financial aid.
SUSPENDED	SUSPENSION	When the most recent semester/term GPA is below 2.0 and the student was on Probation standing. OR When a student fails to comply with the conditions prescribed by the Academic Standards Committee.	1. A student who is academically suspended from BYU will be dropped from all enrollment in day, evening, or extension classes (except Independent Study). 2. A suspended student is denied enrollment in BYU day, evening, or extension classes (except Independent Study) for a minimum of 12 months. During this time, the student is expected to resolve all problems leading to the academic suspension. After 12 or more months out of BYU, the student may apply for readmission for winter semester or spring or summer term. If the student completes any college-level work while on Suspension, he or she must receive an overall GPA of 3.0 or higher to be allowed readmission to BYU. The student should contact the Admissions Office, A-153 ASB, (801) 422-2507, for details and pertinent information about deadlines for consideration and expectations upon readmission. 3. A student with extenuating circumstances who has appropriate support and justification may appeal the 12-month period out of BYU through the Academic Standards Committee. The student should contact the Academic Support Office, 2500 WSC, (801) 422-2723, for assistance. No other appeals will be considered. 4. "SUSPENSION FOLLOWING (specific semester/term)" will be noted on the student's official BYU transcript.
SUSPENDED	DISMISSED	When a student is suspended a second time from the university.	A student who is academically dismissed may not enroll in day, evening, or extension classes (except Independent Study). After three years a student is automatically eligible to enroll in evening or extension classes. A student may seek an exception to be readmitted as a degree-seeking student after two years by petitioning the Academic Standards Committee. "DISMISSED FOLLOWING (specific semester/term)" will be noted on the student's official BYU transcript.

Note: College advisement centers (CACs) may also set registration blocks on students not progressing toward timely graduation. In such cases, students must also meet with their CAC to have this block removed.

Grading and Records

Grading

Grade point averages are computed by assigning numeric values to the letter grades:

Letter Grade Values

A	4.0	C	2.0
A–	3.7	C–	1.7
B+	3.4	D+	1.4
B	3.0	D	1.0
B–	2.7	D–	0.7
C+	2.4	E, UW, I, IE, WE	0.0

The grade given in a course is the teacher's evaluation of the student's performance, achievement, and understanding in that subject as covered in the class. The following adjectives indicate the meaning of the letter grades:

A	Excellent
B	Good
C	Satisfactory
D	Minimum passing
E	Unacceptable

Hence, the grade **A** means that the student's performance, achievement, and understanding were excellent in the portion of the subject covered in the class.

There are prerequisites that qualify students to be admitted to the more advanced classes offered by a department. A senior has added experience, understanding, and preparation and, consequently, progresses in courses that would have been impossible when the student was a freshman. The level of performance, achievement, and understanding required to qualify for each grade that carries credit (any grade other than E, UW, I, IE, or WE) is higher in a more advanced class than in those classes that precede it, and the student is prepared to work at this higher level.

Additional grade designations are as follows:

1. If a student withdraws officially from a class during the first ten class days of a semester or the first six class days of a term, the permanent record will not show a registration for that class. If the student properly withdraws from a class between the eleventh and twenty-fifth class days of a semester or between the seventh and thirteenth class days of a term, the record will be marked **W** (official withdrawal).
2. A **WE** grade will be given if a student petitions to withdraw from a class after the deadline and he or she is failing the class at that time.
3. A **UW** grade indicates that a student unofficially withdrew or stopped attending a class and did not officially withdraw with the Registration Office. An instructor should give a UW when a student stops attending a class before the nonacademic emergency deadline of a semester and does not take the final exam. In addition, if an instructor fails to assign a student a letter grade on the grade roll, the student will automatically receive the grade UW. The UW is calculated in the GPA as a failing grade.
4. A grade of **P** indicates a passing grade. It has no effect on the GPA.
5. The letter grade **I** (Incomplete) is given on a contractual basis with the instructor to students who are unable to complete the work in the prescribed period of time. An incomplete grade may be given for nonacademic extenuating circumstances (serious illness, personal injury, death in the immediate family, etc.) that may arise *after* the nonacademic emergency deadline (the twelth week of a semester or the sixth week of a term). To be eligible for an incomplete, the student must have attended up until the nonacademic emergency deadline and be passing the class. If extenuating circumstances arise before the twelfth week of a semester or the sixth week of a term, the student should discontinue or petition through the Registration Office to be officially withdrawn from the class(es). The Incomplete Grade Contract must be completed and signed by the instructor and the $10 fee paid before submission of the official grade roll at the end of the semester. A copy of the Incomplete Grade Contract must be submitted to the Records Office by the grade submission deadline. A grade of E will be posted until a valid Incomplete Grade Contract is submitted to the Records Office.

   Class attendance in a subsequent semester or reregistration is not permitted to make up the incomplete. In some special instances, such as a lab class, attendance may be required for the portion of the class or lab section missed. Once the work has been completed, the instructor should complete the portion of the Incomplete Grade Contract, showing the grade earned, and submit the form to the Records Office (B-150 ASB).

   The instructor may designate the specific length of time the student has to complete the course requirements (not to exceed one year). In designating the length of time, both the student and instructor should be aware that *the I grade is calculated as a neutral grade for the first four months after it is posted.* If the work is not completed and the new grade submitted by the instructor within the first four months, the I grade will be changed to an IE (the IE grade is considered and calculated as a failing grade even though the work may still be in progress). The IE grade will be changed if the course work is completed by the contract deadline and the official grade is submitted by the instructor. (Petitions for an exception to this policy may be obtained from the Records Office, B-150 ASB.)
6. A grade of **T** indicates course work in progress and is only used in certain approved courses in which work may extend beyond the semester. The T grade may be changed to A, B, C, D, E, or P, depending on the grade rule for the course, when the work is completed.
7. The grade **NS** is placed on the student record when a grade roll has not been submitted to the Records Office by the grade submission deadline. After the deadline, individual Grade Change Authorization forms must be used to submit a new grade to change the NS grade. The NS will not be considered in calculating the grade point average.

Grade Changes

After the final grade submission deadline, grades may be changed only for the following reasons:

- making a calculating error in computing the grade
- posting the wrong grade to the grade roll
- changing a T grade after the course work is completed
- posting a grade if no grade was submitted

- reevaluation of the previous grade with no additional work submitted

When such corrections need to be made, an official Grade Change Authorization Form must be completed and sent directly to the Records Office.

If a student completes any additional work beyond the end of the semester or term (original T grades excluded), grade changes should not be made. Instead, the student should request to have an Incomplete Grade Contract.

A previous grade cannot be changed to a W (Official Withdrawal). If the student had a nonacademic emergency, he or she should file a petition for withdrawal with the Records Office.

Numeric Grade Values (Law School)

In fall semester 1987 the Law School was granted permission to grade their courses on the numeric grading system. In fall semester 1994 the Law School was granted permission to change the numeric grading system to a new numeric scale. All current Law School students with previously earned numeric grades had their grades converted to the new numeric scale:

1987–1994	Description	Fall 1994
80–90	Superior	3.7–4.0
75–79	Excellent	3.3–3.6
71–74	High pass	3.0–3.2
66–70	Pass	2.7–2.9
59–65	Low pass	2.2–2.6
50–58	Fail	1.6–2.1

Resolving Academic Grievances

Despite the well-meaning efforts of students and faculty alike, there may be times when students feel that they have been treated unjustly or that their work has been evaluated unfairly or inadequately by an instructor. Such occasions can be even more frustrating if students are unsure of the procedure for presenting their grievance. The following guidelines should help successfully resolve the problem.

1. Ideally, the student should first bring the grievance to the attention of the instructor involved, who is better acquainted with the situation than any other member of the faculty. Most instructors are anxious to work through differences with their students in a sensitive and fair-minded manner.

   If (a) the instructor is not available, (b) the student feels strongly that the instructor will not deal with the grievance fairly, or (c) bringing the grievance to the attention of the instructor does not resolve the problem to the student's satisfaction, the student may appeal to the chair of the instructor's academic department.

   The chair will consider the grievance and within thirty days will notify the student, the instructor, and the college dean of the decision. The decision can include a recommended grade change.
2. If the student is dissatisfied with the department chair's decision, the student may appeal *in writing* to the dean of the college within which the department is housed no later than thirty days after the date of the chair's notification letter. The written appeal should include the details of the grievance and an outline of the student's efforts to resolve it prior to making this appeal to the college dean.
3. The college dean will give the student the choice of having the grievance resolved directly by the dean or by a three-member committee chaired by a full-time member of the faculty selected by the dean. Should the student choose to have the grievance appeal heard by the three-person committee, the other two committee members will be appointed by the student and the instructor, respectively. Each must either be a full-time student or a full-time faculty member.
4. When the grievance is heard by the dean or the committee, both the student and the instructor may call witnesses to be questioned by the other party and by the dean or committee members. The number of witnesses and the conduct of the hearing will be determined by the dean or the committee chair.
5. The dean's or committee's decision (its majority vote) will be final and not subject to appeal. The decision can include a grade change. The student will be notified in writing of the decision within thirty days of the hearing date.
6. Please realize that the same appeal process is available to the instructor. In other words, if the instructor is not satisfied with the department chair's decision, he or she may appeal to the college dean.
7. The student must bring the grievance to the attention of the instructor or the department chair within one calendar year from the last day of the examination period in the semester or term in which the problem originated. For example, if the grievance occurred in the course offered winter semester, the student must initiate the grievance procedure before the final day of the following year's winter semester examination period. Where military service or an LDS mission makes it difficult to bring the problem to the attention of the instructor or department chair, a later consideration may be permitted.

Questions regarding these guidelines should be directed to the Office of the Dean of Student Life (3500 WSC, (801) 422-4668).

Scholastic Recognition Each Semester

The dean of each academic college at the close of each semester will post a list of names of undergraduate students who are ranked in the top 5 percent of their college for the given semester, who have earned a minimum of 14 credit hours, and who have earned a minimum grade point average of at least 3.5 for the semester.

Grades

After the semester has ended and all grades have been submitted by the faculty, students may access their grades through Route Y on the BYU homepage.

Records

Records Office
B-150 ASB
(801) 378-2631

The Records Office is the official guardian of all permanent records of all academic work done at the university. The office is also responsible for issuing official transcripts of credit. Official transcripts include only courses completed through BYU.

Classification of Students

At the beginning of each semester, students are classified for that semester as follows:

Credit Hours Earned	Classification
1–29.9	Freshman
30–59.9	Sophomore
60–89.9	Junior
90 and over	Senior

Confidentiality of Records Policy

Student educational records at BYU are generally accessible to eligible students according to the provisions of the Family Educational Rights and Privacy Act (FERPA). BYU has adopted an Access to Student Records Policy that explains in detail student rights relating to their educational records. A copy of the policy is available at the Office of the Registrar, B-150 ASB, Provo, UT 84602-1114.

The following is notice of student rights to their educational records, a summary of the procedures for exercising those rights, and a description of student directory information that may be

disclosed to the public without the student's consent as required by law:

Eligible students, admitted and enrolled at BYU, generally have the right to:

1. Inspect and review their educational records within a reasonable period of time upon submitting to the appropriate department managing their educational records a written request, with proof of identification, specifying the records to be inspected. The department will notify the student of the time and place the records may be inspected.
2. Petition BYU to amend or correct any part of the education record believed to be inaccurate, misleading, or in violation of their privacy rights. Students may submit a written request to the department holding the record, clearly identifying the part of the record they want changed, and specify why it is inaccurate or misleading. If the department decides not to amend the record as requested, the department will notify the student of the decision and advise them of their right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures as outlined in university policy will be provided to the student when notified of the right to a hearing.
3. Consent to disclosure of personally identifiable information contained in the student's educational record, except as otherwise authorized by law. Examples of exceptions to consent of disclosure include:
   a. Access of educational records by BYU officials and agents having a legitimate educational interest in the records. This category generally includes any BYU official or agent who accesses student educational records for the purpose of performing a task or responsibility relating to his or her employment or professional responsibility at the university. These individuals may include faculty, administration, staff, and other university agents who manage student educational record information including, but not limited to, student education, discipline, or financial aid.
   b. Parents who establish the student's dependency for federal income tax purposes.
   c. Upon request, BYU will disclose educational records without consent to officials of another college or university to which the student seeks or intends to enroll.
4. File a complaint with the U.S. Department of Education concerning failures by BYU to comply with the requirements of FERPA. The name and address of the office that administers FERPA is Family Policy and Compliance Office, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202-4605, www.ed.gov/offices/om/fpco/.

BYU has designated the following student information as directory information that it may disclose to the public without the consent of the student:

Name
Addresses and telephone numbers
E-mail address
Place of birth
Names of parents or spouse
Major and minor fields of study
Participation in officially recognized activities and sports
Weight and height of members of athletic teams
Current class schedule
Pictures
Dates of attendance (current and past)
Number of months/semesters enrolled
Class standing (freshman, sophomore, etc.)
Total hours earned
Enrollment status (full-time, part-time, less than half-time)
Degrees and awards received
Previous educational institutions attended
Anticipated future enrollments
Course registrations prior to the beginning of a semester or term
Expected date of graduation
Deferred registration eligibility
Religious affiliation to a student's local church or congregation

Students have the right to restrict disclosure of the above directory information. To request restriction of disclosure, students must file a written request on or before the tenth day of a semester or the sixth day of a term. Forms for this request are available in the Office of the Registrar.

Transcript Record Holds

A hold will be placed on a student's record for failure to meet university obligations (fees outstanding, university standards violations, etc.). Until the obligation is fulfilled, no copy of the academic record or diploma or information about the record will be released, and graduation may be delayed or denied.

Special Notations on Transcript

Grade suspension and academic dismissal appear on a student's transcript when action has been taken by the Academic Support Office (see the Academic Support section of this catalog). University suspension or university dismissal may appear on a transcript as determined by the Honor Code Office. Generally these notices do not place a hold on a student's record but do give notice to another university of action taken against the student.

Earning Credits

Students earn approved university credit in the following ways:

Regular Course Work

Complete work in regular courses offered at BYU.

Complete college-level courses through Independent Study, Evening Classes, or other Continuing Education programs.

Transfer Work

Transfer credit for college-level courses completed at an accredited college or university and transferred to Brigham Young University. (See the Admissions section of this catalog for further explanation on transfer college credit.)

Advanced Placement (AP) Exam

Complete the Advanced Placement (AP) examinations. Students who score a composite grade of 5, 4, or 3 in any subject may receive up to 8 semester hours of college credit in that subject.

Military Credit

Serve in the armed forces. Students who have been on active duty in the service for more than one year can receive 1 semester hour of physical activity, 0.5 semester hour of physical fitness, and 4 semester hours in military science. Additional credit may be granted for college-level training and experience in the service. To receive credit, bring the military service DD-214 form to the Academic Advisement Office, B-268 ASB.

International Baccalaureate (IB)

Students who complete the International Baccalaureate (IB) examinations will receive college credit. An IB course at the subsidiary level will normally be given 3 hours of general credit. An IB course completed at the higher level may receive 6 hours of general credit and possibly fill a general education requirement.

Challenge Examination

Students may receive credit by challenging some courses at the university through a separate examination procedure. Departments reserve the right to decide which courses may be challenged by examination. Religion courses, cooperative education courses, physical education activity classes, and other activity participative courses, such as dance, music, youth leadership, and ROTC, may not be challenged. These departments

reserve the right to make individual exceptions under unique circumstances.

Only under exceptional circumstances, such as the foreign language challenge examination, can a course completed earlier be repeated by the challenge procedure.

The challenge examination is not meant to certify that a student has attended the class and completed all course requirements. The challenge examination credit merely shows that the student's skill and knowledge is sufficient to pass a challenge examination for the course.

Only students who are currently enrolled or have completed at least one course at BYU other than Independent Study courses are eligible for the challenge examination option. Students who are suspended or dismissed from the university are not eligible to challenge courses. Students who are suspended or dismissed may not have challenge examination credit posted to their record even if the examination was taken prior to the suspension or dismissal.

Once students have graduated, they are not eligible for challenging any additional credit at BYU unless it is specific to the graduate program to which the students have been admitted. (See current BYU Graduate Catalog for information on how to challenge graduate courses.)

Some challenge exams for credit are offered in the Testing Center, and others are arranged through the department offering the course. A fee payable to the Testing Center is charged for exams offered there. A fee payable to the Cashiers' Office in D-155 ASB is required for exams offered through individual departments. The student should check with the department to see if the exam is offered in the department or through the Testing Center. To earn academic credit and a grade for the course, the student must sign a Challenge Examination Form and have the Testing Center or the department submit it to the Records Office in B-150 ASB. The time limit for a student to choose course credit is determined by the individual academic department, not to exceed one year. No additional fees are charged to post the credits to the transcript. The student's transcript and cumulative grade point average reflect the grade earned on the exam. The procedure to take exams and request academic credit follows.

Procedure for Challenge Exams Given at the Testing Center

1. Contact the appropriate department for the exam procedure and content before going to the Testing Center.
2. Go to the Testing Center (265 HGB). (For testing dates on GE exams, see table in General Education section of the current class schedule.)
3. Pay the required fee at the Testing Center.
4. After the exam is graded and the choice is made to receive graded credit, obtain a Challenge Examination Form at the Testing Center and have it validated there. To accept the grade and receive credit for the course, sign the Challenge Examination Form and have the Testing Center submit it to the Records Office (B-150 ASB). After taking the exam there is a limited time to request that the grade be submitted to receive course credit. The time limit to choose course credit is determined by the department, not to exceed one year. Graded credit will be added to the student's official university transcript, and the ABC Report will show any GE requirement as fulfilled. (Students taking the Physical Science examination may take the grade or an exemption if their score is 75 percent or above. If their score is between 60 and 74 percent, they may receive graded credit.)
5. Students enrolled in the course when they pass its challenge exam must also complete an Add/Drop Card and drop the course. Students who drop the class after the add deadline (ten class days after a semester starts or six days after a term starts) will receive a W on their transcript for dropping the course. If the course is not officially dropped before the drop deadline, the grade given by the instructor based on class performance will appear on the transcript.

Procedure for Challenge Exams Not Given at the Testing Center

1. Whether or not students are enrolled in the course they are challenging:
   a. Complete the Challenge Examination Form available from the department.
   b. Arrange with the department to take the exam.
   c. Pay the $20 required fee at the Cashiers' Office in D-155 ASB and have the form validated there ($20 fee per course except for the language exams).
   d. Present the validated form to the department examiner.
   e. Have the grade and credit recorded on the form by the examiner and obtain the necessary departmental signatures.
   f. After seeing the grade, students may choose to have the credit posted to their academic record by signing the Challenge Examination Form and having the department send the completed form to the Records Office (B-150 ASB). After taking the exam there is a limited time to request that the grade be submitted to receive course credit. The time limit to choose course credit is determined by the department, not to exceed one year.
2. Students enrolled in the course when they pass its challenge exam must also complete an Add/Drop Card and drop the course. Students who drop the class after the add deadline (ten class days after a semester starts or six days after a term starts) will receive a W on their transcript for dropping the course. If the course is not officially dropped before the drop deadline, the grade given by the instructor based on class performance will appear on the transcript.

Exemption Examinations for GE Requirements

Some general education requirements can be accomplished by successfully completing an examination. Exemption examinations for selected GE courses are offered at the Testing Center. (See table in the General Education section of this catalog for dates of exemption examinations.)

Procedure for Exemption Exams

1. Contact the appropriate academic department for exam procedure and content before going to the Testing Center.
2. Go to the Testing Center (265 HGB) on one of the examination days. (See table in the General Education section of the current class schedule.)
3. Pay the required fee per class at the Testing Center.

Students enrolled in the course when they pass its exemption examination **must** also drop the course. Students who drop the course after the *add deadline* (ten days after a semester starts or six days after a term starts) will be officially withdrawn. (This shows as a W on the transcript.) If the course is not *officially* dropped before the drop deadline, the grade given by the instructor based on class performance will appear on the transcript.

Note: The ABC Report of students who pass an exemption exam at the Testing Center will be updated automatically at the end of the semester or term. Students should retain their score report for their records.

Earning BYU Credit While on Suspension

Students who have been suspended from Brigham Young University are not eligible to enroll in courses through day school, evening school, or any of the Continuing Education programs offered by the university except those courses offered through Independent Study. Students should consult their advisement center to determine which Independent Study courses to take.

Repeating Classes

Effective fall semester 2004, the university may impose an additional fee for courses repeated during a fall or winter semester.

To have a previously completed course marked *repeated*, the new course must be equal or greater in credit hours. When a class has been repeated, the credit used in computing the grade point average is the grade and credit hours earned the last time the repeated class was taken. Students may repeat classes in the following ways:

1. Repeat Brigham Young University courses at Brigham Young University (except for R-suffix courses—see Abbreviations and Symbols in the Using This Catalog section).
2. Repeat at Brigham Young University courses initially taken at another university. (A statement of equivalency must be supplied by the appropriate BYU department chair.)
3. Repeat at another institution courses taken there and have the credit transferred to Brigham Young University.

Note: A course repeated at an institution other than the one at which it was taken originally and other than at BYU will not be counted as a repeat.

Discontinuance and Student Academic Record Appeals Committee

Discontinuance

Discontinuance Office
B-150 ASB
(801) 422-7705

To withdraw from the university, day students who have registered for classes must officially discontinue. Before the first day of class, students may use the Web registration system through Route Y. After classes begin students must discontinue through the Discontinuance Office.

Students who have registered for classes and paid tuition must officially discontinue to drop classes and initiate a tuition refund. (Refer to the Tuition and Fees section of this catalog for refund information.) Students who have registered for classes but *have not* paid tuition must also discontinue. If these students do not withdraw before the start of classes, they will be billed for tuition up to the official date of discontinuance.

The discontinuance process includes the following:

1. Before classes begin students may use the Web registration system through Route Y.
2. After classes begin consult with the Discontinuance Office representative and complete discontinuance forms available from the Discontinuance Office.
3. If discontinuing during or after the sixth week of the semester (or third week of the term or block), obtain signatures of individual class instructors (student is now responsible for grades earned in class). The instructor will indicate an official withdrawal (W) or an academically failing (WE) withdrawal grade.
4. Submit discontinuance forms and be signed out by a Discontinuance Office representative.
5. Upon discontinuance, the student's ID will be electronically voided.

All undergraduate students who discontinue during a major semester (fall or winter) or during the term for which they were accepted should contact the Admissions Office about future readmission eligibility. To withdraw after the twelfth week of the semester (or fifth week of a block or term), students must file a petition with the Registration/Records petition secretary (B-150 ASB) rather than contacting the Discontinuance Office.

Those students registered as Evening Classes students only must discontinue through the Office of Evening Classes, 120 HCEB. Law School students must initiate their discontinuance through the office of the Law School dean, 348-A JRCB.

Students who leave the university under emergency conditions and subsequently do not return still have the responsibility to discontinue before the discontinuance deadline. Official termination can be completed by contacting the Discontinuance Office at the earliest possible time.

Student Academic Record Appeals Committee

The Student Academic Record Appeals Committee has been established for students who encounter situations involving non-academic extenuating circumstances or emergencies potentially affecting their educational records that fall outside the realm of normal university policy and procedure. The petition process must be initiated within *one* year from the semester or term in question. It is the student's responsibility to obtain the necessary supporting information from the instructor, physician, employer, etc., to accompany the request. Petition forms may be obtained in the Records Office, B-150 ASB.

Graduation

Graduation Evaluation Office
B-238 ASB
(801) 422-3641

Graduation Information

Adherence to University Standards

Graduation may be delayed or denied for students who violate the BYU Honor Code, whose ecclesiastical endorsement has been withdrawn, or who have unmet financial obligation with the university.

Note: Any hold, warning, or probation by the Honor Code Office must be properly cleared well before graduation.

Application for Graduation

All who wish to graduate must officially apply for graduation. Students who are applying for the bachelor's degree should do so during their junior year. Application forms are available at the college advisement centers. Submit the completed application form and the graduation fee of $15 for a bachelor's degree to the Cashiers' Office (D-155 ASB, PO 21128) no later than September 15, 2003, for December graduation; November 15, 2003, for April graduation; and April 15, 2004, for August graduation.

Students who apply after the deadline dates will need to contact their advisement center to be considered for graduation. The Graduation Evaluation Office (B-238 ASB) will notify students in writing of the general education and university requirements remaining.

Students who plan to obtain teacher licensure must see the Education Advisement and Certification Office before turning in their graduation application to the Cashiers' Office.

Attendance at Commencement

All candidates for graduation are encouraged to attend the commencement and convocation exercises. Diplomas will be mailed to students after all grades are submitted and all graduation requirements are certified complete. Commencement exercises are held in April and August only. December graduates are invited to the April commencement following their graduation.

Deadlines for Transfer, Correspondence, and Incomplete Credit

All incomplete grades must be removed from the student's record, special examinations and general education requirements must be passed and recorded, and all transfer and correspondence (Independent Study) credit must be on file in the Records Office at least four weeks before commencement.

Earning Lower Degree after Receiving Higher Degree

A person who has earned a higher degree is ineligible to earn a lesser degree at BYU unless exception has been granted by the Student Academic Record Appeals Committee (B-150 ASB).

Independent Study Credit

A maximum of 36 semester hours of Independent Study credit may be applied toward the 120-semester-hour requirement for a baccalaureate degree.

Note: See the Bachelor of General Studies Program section of this catalog for BGS requirements.

Scholastic Recognition

University Honors

To graduate with University Honors, a student must:

1. Commit to graduate with University Honors and consult with an Honors Advisement Center representative once each semester.
2. Complete the honors curriculum requirement.
3. Complete the honors Great Works requirement.
4. Completes the honors Advanced Languages requirement.
5. Complete the honors service requirement.
6. Complete the honors thesis requirement.
7. Have a cumulative grade point average of at least 3.5.
8. Submit a graduation portfolio that summarizes the student's honors experiences.

More detailed explanations of the Honors Program are available in 102-A MSRB and in the Honors Program section of this catalog.

Latin Scholastic Distinctions

Latin Scholastic Distinctions at graduation are determined by GPA for the top 10 percent of the graduating seniors based on cumulative and BYU grade point averages.

Summa Cum Laude is awarded on the basis of grade point average to the top 1.0 percent of the baccalaureate candidates who have earned a minimum 45 semester hours of credit at BYU.

Magna Cum Laude is awarded on the basis of grade point average to the top 1.1 to 5.0 percent of the baccalaureate candidates who have earned a minimum 45 semester hours of credit at BYU.

Cum Laude is awarded on the basis of grade point average to the top 5.1 to 10.0 percent of the baccalaureate candidates who have earned a minimum 45 semester hours of credit at BYU.

Graduation Requirements

Staying Abreast of Changes

University graduation requirements (general education, religion, and major) change with curriculum, program, and faculty changes. The university informs students of such modifications through its published curriculum materials (this catalog and the class schedules). **Students who leave the university for an extended period of time should stay abreast of such changes through these documents.**

Baccalaureate Degree Requirements

The baccalaureate degree at BYU is awarded for the equivalent of four years of dedicated university study. It marks not just achievement, but important changes in outlook that come as the

result of an extended university experience. At BYU this includes not just the discipline of a major, but the foundation of religious education and the enlarged perspective of general education. A student may have more than one major, but there is only one baccalaureate degree. The degree granted (BA, BS, etc.) is associated with the primary major.

General Education Requirements for the Baccalaureate Degree

See the General Education section of this catalog for complete information.

Languages of Learning	Number of Courses	Usual Credit Hours
Precollege Mathematics	0–1	0–3
First-Year Writing	1	3
Advanced Writing	1	3
Advanced Languages (Foreign Language, Mathematics, or Music)	1–4	3–20
Liberal Arts Core		
Biological Science	1–2	3–6
Physical Science	1–2	3–7
American Heritage	1–2	3–6
Wellness	1–3	1.5–2
Civilization	2	6
Arts and Sciences Electives		
Arts and Letters elective	1	3
Natural Sciences elective	1	3–4
Social and Behavioral Sciences elective	1	3
(See the GE course list in the current class schedule for all authorized GE courses.)		
Total	12–24	34.5–71*

*Actual credit hours will depend on precollege preparation and course choices.

Religion Requirement for the Baccalaureate Degree

14 hours of BYU religion classes.

Religious Education Requirements: Religion requirements are listed in the Religious Education section of this catalog.

Residency Requirement

At least 30 semester hours of credit taken in residence at BYU are required for a bachelor's degree. A maximum of 10 semester hours earned at BYU Continuing Education centers or at Church institutes of religion may be applied toward this 30-hour requirement. Attendance at the BYU Jerusalem Center or the Nauvoo Center also count toward fulfilling the residency requirement.

Total Credit-Hour Requirement

A candidate for a bachelor's degree must complete a minimum of 120 semester hours of earned credit.

Grade Point Average Requirement

To graduate from BYU students must earn a minimum 2.0 BYU grade point average and a minimum 2.0 cumulative grade point average. Students must also meet minimum grade point average requirements in their major.

Major Requirements

Students must complete at least 20 semester hours in their major department, 10 of these on the BYU campus. Students must also satisfy any additional departmental requirements.

Double Major

A class used in a student's primary major cannot also be used in a second major or a minor without the prior written approval of both the department chairs and the dean(s) of the college(s) involved. Students should see their college advisement center for details.

Policy on "Old" Graduation Requirements and Credit

Brigham Young University is committed to providing its students with an excellent university education consisting of a broad general education that includes religious education and a strong major education. Programs of the university change and develop in the continuing effort to make learning and experience as valuable as possible. Development, growth, and improvement are expected parts both of our lives and our institutions. It is because of the commitment to a superb education that the university's programs develop and improve and that students are expected to meet the current standards of the university when they graduate, even though they may have begun their studies long ago under quite different expectations.

Students who complete a baccalaureate degree within eight academic years of enrollment at BYU qualify for graduation by meeting those religion, university, and general education requirements in effect when they initially enrolled, even though there may have been changes in general education and religion requirements since that time.

In addition, students who complete baccalaureate degrees within eight academic years of enrollment at BYU qualify for graduation by meeting those major education requirements in effect when they officially declared the major with which they graduated even though such declaration was made at some point following their original enrollment. (A student officially declares a major one of two ways: [1] by indicating the choice of major on part A of the university's Admission, Scholarship, and Housing Application or [2] by submitting a Change of Major Form to a college advisement center at a subsequent time.)

Students who have not graduated within eight years of their initial enrollment at BYU will be required to meet with the dean and department chair in the area in which they are majoring to determine graduation requirements and the use of credit previously earned. Where general education or major requirements have changed or where credit previously earned was in an area of substantial change, students may be required to do additional work to meet graduation requirements.

This means that credit earned more than eight years before admission or readmission (including transfer credit) will be accepted to meet general education or major graduation requirements at the discretion of the university.

Bachelor of General Studies

See the Bachelor of General Studies Program in the Division of Continuing Education section of this catalog.

Advisement

An important corollary of the university's commitment to provide its students with an excellent university education is its commitment to help students find their way through their programs effectively and efficiently. Students whose educational experience has reached over many years and who find that changes in programs will require additional work and preparation should consult with department advisors for help in planning their schedules in the best and most encouraging way possible.

The university's requirement that a student graduate under current or very recent standards is meant to benefit the student and is in no way established to deter a determined person from returning to the university after years away. Good advisement can be of great help in working out a program of study at the university, taking into account individual needs, concerns, and experience.

Students who return to the university after an extended absence should contact the Graduation Evaluation Office (B-238 ASB, (801) 422-3641) and confer with their college advisement center counselors and department advisors immediately upon returning to the university, both for advice and help concerning graduation requirements and for evaluation of their credit. In many instances it will prove possible to negotiate a schedule of classes that will allow the student to move toward a degree without lost effort.

Religious Education

370 JSB
(801) 422-2735

Dean: Andrew C. Skinner, Professor, Ancient Scripture
Associate Dean: Terry B. Ball, Associate Professor, Ancient Scripture
Associate Dean: Matthew O. Richardson, Associate Professor, Church History and Doctrine

The following departments are in Religious Education:

Ancient Scripture
Church History and Doctrine

Religion courses are provided so that students may progress in their religious understanding and convictions simultaneously with their educational progress in secular fields. The Church of Jesus Christ of Latter-day Saints has always maintained that education is not complete without proper integration of secular and religious knowledge and values. All students at BYU should include regular gospel study as a continuous part of their university experience.

Religious Education administers all religion courses sponsored by the university. Courses are available in ancient and modern scripture, Church history and doctrine, and related subjects. Undergraduate majors are not offered in religion; however, some graduate offerings in the 500s and 600s are available for use as supporting courses in some of the graduate degree programs of other departments at BYU.

Religion Requirements for Full-Time Students

- **14 hours of religion credit** are required for all full-time students to graduate.
- All students who graduate from BYU must complete **4 hours of credit in Book of Mormon** (RelA 121 and 122). Book of Mormon should be taken the first year. ***Returned missionaries must enroll in sections designated for returned missionaries.***
- All full-time students must complete one **Doctrine and Covenants** class (RelC 324 or 325).
- All full-time students must complete one of the following **New Testament** classes: RelA 111, 200, 211, 212, 310, or 311.
- **No more than 4 hours of religion credit** per term, quarter, or semester, whether taken at BYU or elsewhere, may be counted toward the religion requirement. (Spring and summer terms together equal a semester.) Semester Abroad programs may require exceptions.
- Part-time students and students enrolled for a term or a block must complete 2 credit hours of religion for every 15 hours of BYU registration.
- Classes numbered in the 500s and 600s do not apply toward undergraduate religion credit.
- Students who entered BYU before fall semester 1985 must complete 14 hours of religion, including 4 hours of credit in Book of Mormon (121 and 122), but are not required to take Doctrine and Covenants or New Testament.

Non-LDS Students

Students who are not LDS are strongly encouraged to enroll in RelC 100, Introduction to Mormonism, during their first semester in residence. This course is designed to be informational, to introduce students to the culture, scriptures, and distinctive doctrines of The Church of Jesus Christ of Latter-day Saints, and to prepare them for subsequent religion classes. It may be used to fill either the New Testament or Doctrine and Covenants requirement.

Religion Requirements for Transfer Students

Transfer students should look at the religion requirement as consisting of two parts: a subject matter requirement and a credit hour requirement. The subject matter requirement may be completed either at BYU, at one of the other Church Educational System schools, or an LDS Institute of Religion. **A minimum number of religion credit hours must be completed at BYU** regardless of the number of religion credit hours completed elsewhere to fulfill the credit hour requirement according to the following schedule:

Total Transfer Credits	Minimum Religion Hours to Take at BYU	Required Subject Matter
0–14.9	14	Book of Mormon (RelA 121 **and** 122), Doctrine and Covenants (RelC 324 **or** 325), New Testament (RelA 111 **or** 200 **or** 211 **or** 212 **or** 310 **or** 311).
15–29.9	12	
30–44.9	10	
45–59.9	8	
60–74.9	6	Book of Mormon (RelA 121 **and** 122), Doctrine and Covenants (RelC 324 **or** 325).
75–89.9	4*	
90 or more	2*	Book of Mormon (RelA 121 **and** 122).

*More credits may be needed if the required subject matter has not been completed.

Note: The transfer credits are shown in semester hours. To convert quarter hours to semester hours, multiply the quarter hours by two and divide by three (i.e., 12 quarter hours x 2 = 24 ÷ 3 = 8 semester hours).

Courses for Ancient Scripture and Church History and Doctrine

See Religious Education in the Academic Departments, Degrees, and Courses section of this catalog.

Students Studying Off Campus

BYU students who study off campus to fulfill degree requirements are required to register for a religion course during the semester. This can be fulfilled through Independent Study or at a BYU Continuing Education Center. Students must complete 2 credit hours of religion for every 15 hours of registration at BYU Continuing Education Centers.

Religion Credit from Non-LDS Colleges and Universities

Religion credit from non-LDS universities and colleges will not satisfy the religion requirement at BYU. The transfer credit may, however, apply as elective credit toward the total hours required for graduation.

Preparation for Church Educational System Employment

To be considered for employment as a professional seminary teacher, a student must obtain a bachelor's degree in a major of his or her choice and complete the seminary teacher training classes (RelC 370, 471). Following a student teaching experience in a local seminary, the most effective teachers are recommended for positions. Complete information is available through the Office of Seminaries and Institutes, 207 JSB, (801) 422-2031.

Graduate Programs

See the 2003–2004 BYU Graduate Catalog.

Religious Studies Center

370 JSB

The dean of Religious Education is also the general director of the Religious Studies Center, which promotes research in areas related to Religious Education. The center is the supporting and coordinating agency for religion-oriented research throughout the university and the Church, concentrating on research, writing, and other scholarly activities.

Richard L. Evans Chair of Religious Understanding

The Richard L. Evans Chair of Religious Understanding promotes understanding among people of different faiths. Its purpose is to articulate to a broad audience the religious values to which Elder Evans dedicated his life and to promote an enlightening exchange among Latter-day Saints, members of other faiths, and other people of good will.

General Education

Undergraduate Education Office
302 MSRB
(801) 422-3038

Dean: George S. Tate, Professor, Humanities and Comparative Literature
Associate Dean—General Education: John D. Lamb, Professor, Chemistry and Biochemistry
Associate Dean—Honors: J. Scott Miller, Professor, Japanese and Comparative Literature
Associate Dean–University Writing: Kristine Hansen, Professor, English
Associate Dean—Freshman Year: Clark D. Webb, Professor, Education
Assistant Dean: Carolyn Tuitupou

Undergraduate Education

The dean of Undergraduate Education (formerly General Education and Honors) and his associates supervise and foster essential university-wide elements of the baccalaureate: General Education, Honors, University Writing, and Freshman Year (including Freshman Academy and New Student Orientation). These interrelated programs together promote and champion teaching and learning within an integrated *university* education. They aim to enhance the educational experience and to benefit the life of each undergraduate student.

The BYU Baccalaureate: Integration

There are three formal components to the baccalaureate at Brigham Young University: general education, religious education, and education in a major. General education is intended to provide students with intellectual breadth and the capacity to make connections among fields of knowledge. It is the foundation of the "broad university education" spoken of in the Mission Statement, of which the "arts, letters, and sciences provide the core." Although all disciplines at BYU are, in varying degrees, considered in light of the gospel of Jesus Christ, religion courses, which focus on careful study of the scriptures and the teachings of living prophets, assist students to grow in their religious understanding and convictions, keeping apace with their intellectual development. Education in the major provides students with competence that can only come from sustained, systematic engagement with a particular academic discipline. It develops in them the skills, tools, and critical understanding that prepare them for a career or further study in graduate or professional programs.

Each of these areas complements the others, and, as *The Aims of a BYU Education* imply, the ideal of the BYU baccalaureate is integration. Religion is not isolated under "spiritually strengthening" but appears under "intellectually enlarging," related both to "breadth" and "depth." Skills are developed in general education as well as in the major. General education per se is not directly mentioned under breadth, which suggests that breadth should also encompass the major, providing "historical perspective, including perspective on one's own discipline." Depth is addressed not only in the major but also in "advanced" requirements under general education. In short, a BYU education is an invitation to wholeness.

Why General Education?

General education is at the heart of a university education; it is what makes *university* education different from specialized vocational training, and it should be pursued and savored with the same dedication devoted to the major. There are sound practical arguments for general education: most graduates, five years after completing their degrees, are not employed in the areas of their majors; and studies show that those who do best in the long term are usually those whose breadth of education, rather than specialized training, has given them versatility. But the value of general education lies beyond its utility. It provides a foundation for intellectual development; it increases our understanding of civilization—of humankind's most valuable knowledge and achievements in the arts, letters, and sciences. General education teaches us the importance of critical thinking, an awareness of the past, aesthetic sensibility, and moral judgment. These, together with the training that general education provides in verbal and quantitative skills—in manipulating symbolic systems—help prepare us for a lifetime of learning, effective communication, responsible action, forming and judging arguments, and appreciating the good and the beautiful.

Students who benefit most from the best BYU has to offer are able to take the university with them because they have been changed by their experience; they have developed educated habits of mind; they have deepened their faith; they have learned to integrate the sacred and the secular; and they have learned that the craving for knowledge is not fully capable of satisfaction within a lifetime. They become lifelong learners, engaged in service to their fellow human beings.

Modification of the GE Program in 1995

The general education (GE) program was revised in 1995. Students who entered the university before fall 1995 have the option to continue with their original GE program or to switch to the newer program. Students enrolled before fall 1995 should visit their college advisement center to discuss the optimal program, given their current status.

Modifications to the 1988 GE program are:

- A music theory option was added to satisfy the Advanced Languages requirement.
- An alternative, multicourse option was added to most core requirements.
- The number of required Arts and Sciences elective courses was reduced from four to three.
- The Physical Education and Health university requirement was changed to the Wellness requirement and is now included as part of general education.

Students who entered BYU fall 1995 or thereafter are automatically on the GE program described on the following pages.

Description of the GE Program

The GE Program comprises three categories called Languages of Learning, the Liberal Arts Core, and Arts and Sciences Electives.

The objectives for each of the three areas are explained below. Brief statements of the ways to satisfy GE requirements are provided in the accompanying table. Detailed information concerning the options available to complete each requirement is given in the General Education Courses section of the current class schedule.

General Education Program

Note: This list is subject to change each semester. Some classes listed here have approval on a trial basis and may be removed from the list at a later date. Students should consult a current class schedule each semester/term to ensure that the class they take is still approved for GE. Some requirements can also be satisfied via AP or IB credit. Check with the Academic Advisement Office, B-238 ASB, telephone (801) 422-3641, for the current mapping of AP/IB exams to GE requirements.

Requirement	Options	
LANGUAGES OF LEARNING		
Precollege Math	ACT math subscore of 22 or above; SAT math subscore of 500 or above; or GE 105; or Math 97, 110, 111, or any higher college-level calculus course.	
First-Year Writing	Engl 115, 200, 200H, HonP 200, Phil 105, or Phil 105H	
Advanced Writing	Prerequisite is First-Year Writing or its equivalent. See the list of approved courses in the current class schedule. Some majors require a specific course. Recommended to be taken during junior year.	
Advanced Languages Four options: Advanced Math, Statistics, Foreign Language, or Advanced Music	Requirement to be satisfied either in mathematics, statistics, in one of two music tracks, or in a foreign language. See the current class schedule for approved math, statistics, music, and foreign language classes.	
*LIBERAL ARTS CORE (Check with your college advisement center to know which courses you should take.)		
Civilization	One 201 *and* one 202 course from the approved list in the current class schedule	
	Option A	**Option B**
American Heritage	One course: AHtg 100, 100H; or HonP 240	One of the following two-course combinations: Hist 220 and PlSc 110; or Hist 220 and Econ 110; or PlSc 110 and Econ 110; or Hist 221 and PlSc 110
Biology	One course: Biol 100, 100H; HonP 260	One course each from two of the three groups: Group 1: Biol 150, 350; InBio 131 Group 2: Biol 276, 340; PDBio 205, 220 Group 3: Biol 240; MMBio 221
Physical Science	One course: PhyS 100, 100H; or PhyS 110A *and* 110B; or HonP 259	One course each from two of the three different departments: Chem 101, 105, 111, 111H, 152 Geol 101, 101H, 103, 111, 330 Phscs 101, 105, 121, 127, 127H, 220
Wellness	HEPE 129	Three physical education or dance activity courses (see detailed information in the current class schedule).
*ARTS AND SCIENCES ELECTIVES		
Natural Sciences	Choose one course from the approved list in the current class schedule.	
Social and Behavioral Sciences	Choose one course from the approved list in the current class schedule.	
Arts and Letters	Choose one course from the approved list in the current class schedule.	

*Classes in the Liberal Arts Core under Option B cannot be used to satisfy both the Liberal Arts Core and the Natural Sciences or Social and Behavioral Sciences electives; one course or combination of courses cannot fulfill more than one requirement.

Languages of Learning

In our modern, complex society, the ability to communicate effectively is deemed a critical skill. Under the Languages of Learning category are grouped the areas of writing, mathematics, foreign languages, and music theory, each of which represents an important way to convey information and understanding. Because writing at the college level is considered essential to success at the university, students are asked to complete the First-Year Writing course. Later, once students have identified an area for major study, they are provided with an opportunity to develop writing skills in that discipline. To function in a technological society, a basic knowledge of mathematics as a means of communication and problem solving is essential. All students, upon admission, are asked to certify a basic level of numeracy, either with an appropriately high score on the Mathematics section of the ACT or SAT exams or by completion of a BYU course. We then ask that students exhibit a mastery of either mathematics, music theory, or a foreign language at an advanced level. At this level students achieve an exposure to cultures and to the ways in which practitioners of the language structure their knowledge.

Liberal Arts Core

University education is built upon a core of essential knowledge in the liberal arts, which encompass the arts, letters, and sciences. The Liberal Arts Core comprises a civilization sequence, which provides a historical framework and a consideration of important works and themes; American Heritage, an introduction to the political and economic foundations of the American democratic system; the biological and physical sciences, with emphasis on their underlying principles and on scientific reasoning; and wellness, based upon the ideal, both classical and religious, of cultivating "a sound mind in a sound body."

For every requirement in the core, with the exception of Civilization, there are two pathways to complete the requirement—a one-course option and a multiple (two or three)-course option. The multiple-course options are structured to cover much of the same material that is included in the one-course options but in greater depth (see table).

The options for different core requirements are independent of each other. That is, one may choose the multiple-course option to satisfy the Biological Science core requirement but choose the one-course option for the Physical Science, American Heritage, and Wellness requirements. In general, students will find it most efficient to take the one-course options for a given requirement. However, students in some majors will find that a particular core requirement can be satisfied using the multiple-course pathway with courses they are already taking for their major. Students with career or personal interests outside their major may find that the multiple-course options better serve their needs. For example, the philosophy or language major who hopes to become a physician may satisfy the Physical or Biological Science core requirement by virtue of the science courses required for admission to medical school.

Both the Languages of Learning and the Liberal Arts Core provide for multiple ways to satisfy individual requirements. The number of courses and credit hours needed to satisfy a requirement will vary with the particular option chosen and/or the student's previous preparation.

Arts and Sciences Electives

The Arts and Sciences Electives are divided into three categories: Arts and Letters, Natural Sciences, and Social and Behavioral Sciences. These three divisions encompass the spectrum of human endeavors. The objective of these elective courses is to build upon the foundation of the core, extending and deepening the student's understanding of the arts and sciences through more focused study of specific disciplines. Students must take one course from each of the three areas. Unless the major program dictates a specific course, students are free to select from a large list of approved courses. These courses are certified for approval by a faculty council, and students are encouraged to check a current class schedule for an up-to-date list of approved courses.

Some courses are approved as both Arts and Sciences electives and as one of the multiple-course option to the Liberal Arts Core requirements. The same course cannot be used for both the elective requirement and to partially complete the core requirement.

Because a significant objective of general education is to provide breadth to the student's education, we recommend that elective courses be taken outside the major. However, once a course certified to satisfy an elective is completed, the GE requirement will be considered satisfied. Changes in majors will not affect the student's progress toward completion of the GE program. Nevertheless, the new major may impose additional requirements, such as a particular Advanced Writing course.

Where variable numbers of courses or credit hours are indicated, the effort required to complete the requirement depends upon the student's level of preparation. The complete list of courses currently certified to satisfy a particular requirement and additional details of how to complete the requirements are given in the General Education Courses section of the current class schedule.

GE and the Honors Program

The BYU Honors Program offers a number of courses that satisfy both GE and honors requirements. These courses provide a deeper, more intense exposure to the subject matter for the student who is interested in a challenging experience. Additional information concerning these courses may be obtained from 102A MSRB, telephone (801) 422-5497, or by consulting the Honors Program Course Guide.

Selection and Timing of GE Classes

To gain approval to meet a GE requirement, a course is subjected to a rigorous evaluation. Such approval is not granted lightly, and students should ensure that the courses they select are, in fact, approved for GE credit. This information is updated each semester/term and published in the current class schedule.

Although the time to complete GE requirements varies according to the major, all new students are required to complete the First-Year Writing, American Heritage, and two Book of Mormon classes during their freshman year. If these requirements are not completed by the end of their freshman year, students will be prevented from subsequent registrations until they meet with an academic advisor. It is recommended that new freshmen complete the first part of the Book of Mormon and either First-Year Writing or American Heritage their first semester, and the second part of the Book of Mormon and either First-Year Writing or American Heritage (whichever they have not already completed) their second semester.

Students planning to satisfy the Biological Science, Physical Science, and Precollege Mathematics requirements with the one-course options (e.g., Biol 100, PhyS 100, and Math 110) should also complete these during their freshman year. Civilization courses are designed as sophomore-level courses, although some programs include them during the freshman year. Advice as to when to complete the other GE requirements can be obtained at college advisement centers or department offices.

Ways to Complete GE Requirements Other Than by Course Work

In addition to completing approved courses, there are several options by which students may satisfy the components of the GE program: transferring acceptable credit from other academic institutions; receiving credit from Advanced Placement (AP) and International Baccalaureate (IB) examinations; or passing special examinations at the university.

Transfer Credit

The application of transfer credit to GE requirements is handled by the Transfer Evaluation Office (B-238 ASB, (801) 422-3641). Consortium agreements have been reached with several junior and community colleges to facilitate the transfer process for students who have completed certain associate degrees. The Transfer Evaluation Office can be contacted for up-to-date information regarding the status of those agreements with a particular junior or community college.

Advanced Placement and International Baccalaureate Credit

The results of some Advanced Placement (AP) and International Baccalaureate (IB) exams may be used to waive certain GE requirements and to obtain general university credit. AP or IB credit posted to a transfer institution will be evaluated upon BYU's standards and not those of the transfer institution. The Academic Advisement Office (B-238 ASB, (801) 422-3641) can be contacted for details regarding credit hours and exemption from GE requirements for both AP and IB exams.

College Level Examination Program

BYU stopped giving credit for general exams in 2000. At this time, BYU does not give credit for subject exams either. CLEP credit posted to another institution's transcript is reevaluated based on BYU's standard.

Exemption and Challenge Examinations

Some GE requirements can be accomplished by successful completion of an examination. Two types of examinations are available, the exemption exam and the challenge exam. *A student may only take an exemption or challenge exam once during each semester or term.* Students do not have to be enrolled in a course to take an exemption or challenge exam. However, some of the exams are given early enough each semester/term so that students who are enrolled and pass the exam may drop the course. Students not enrolled in a course have an opportunity to take the challenge or exemption exams offered at the Testing Center. Students should contact the appropriate academic department for specific exam information **before** going to the Testing Center.

How Do You Get Help with Specific Questions Concerning General Education?

The essential information concerning general education is found in this catalog. Sources of additional information include the following:

College Advisement Centers. The recommended source of information and advice about general education requirements is your college advisement center. The ten college advisement centers, together with the University Advisement Center, 2500 WSC, provide assistance with registration, graduation requirements, policies and procedures, fields of study, changes of major, and many other aspects of academic life. Computer terminals are available in the advisement centers and other locations on campus to provide you with an up-to-date report of your academic status. To access an Advisement by Computer (ABC) Report, do so through Route Y on the BYU home page.

Exemption and Challenge Examinations Given in the Testing Center

Course	Exemption Exam (No Credit or Grade)	Challenge Exam (Graded Credit)	Fee (Pay at Testing Center)	Department to Contact
Precollege Math (Math 97)	X (score of 70% and above)		$10	Math Lab 60 KMB, (801) 422-4695
Biological Sciences (Biol 100)		X	$20	Biol 100 Office 112 HRCB, (801) 422-4339
Physical Science (PhyS 100)	X (score of 75% and above)	X (score of 60% to 74%)	$10	PhyS 100 Office N252 ESC, (801) 422-3307
American Heritage (AHtg 100)		X	$20	AHtg Office 166 SWKT, (801) 422-6076

For First-Year Writing (Engl 115) go to http://english.byu.edu/composition/115/challenge.htm.
For information regarding all other challenge examinations, please contact the department that offers the course.

Honors Program

102A MSRB
(801) 422-5497

Dean, Undergraduate Education: George S. Tate, Professor, Humanities and Comparative Literature
Associate Dean—Honors/Honors Program Coordinator: J. Scott Miller, Professor, Japanese and Comparative Literature
Assistant Dean—Honors, Undergraduate Research, Postgraduate Scholarships: Carolyn Tuitupou

University Honors at Graduation

University Honors is a distinction awarded to all graduates of BYU who have met the honors requirements as described below. This prestigious designation is recorded on the university diploma, on the official transcript of grades, and in the graduation program. It is widely recognized as an indication of exceptional academic achievement.

Participation in Honors

The Honors Program provides an unusually rich and challenging experience for capable and motivated undergraduate students. Its purpose is to assist students as they establish lifelong patterns of learning and appreciation of the world's great treasures of knowledge. Honors education is not merely a more intensive general education or a more strenuous program in a major. Rather, it provides students with the advantages of an enriched education in a small-class setting with excellent professors, while utilizing all of the advantages of a large university. Students who pursue an honors education at Brigham Young University take honors courses that meet general education requirements and participate in an intensive honors thesis experience in their major.

To graduate from BYU, students must meet not only the requirements of a major department but also the requirements of general education and religion. Most students complete the nonmajor requirements through courses in the general university curriculum. Because all students must complete general education requirements, some required general education classes have high enrollments, and there is little opportunity for students to interact with the professors. The Honors Program invites capable and motivated students to satisfy general education and religion requirements through honors as alternatives to the standard general and religious education programs. Honors courses have small enrollments (usually fewer than 30 students per class) and are focused on class discussion and writing.

Although it is hoped that students will choose to complete all of the requirements for the University Honors designation, those who do not intend to do so are welcome to participate in the Honors Program to whatever extent they choose. All students are invited to consider honors as a way to achieve the kind of academic experiences they seek. Students may register for honors courses at any time during their undergraduate years without necessarily intending to complete all the honors graduation requirements.

Honors education is open to all students who choose to participate; there is no formal membership in the Honors Program. Students who intend to graduate with University Honors should complete a commitment form that may be obtained from the Honors Advisement Center in 102A Maeser Building (MSRB).

Facilities and Opportunities Available to Honors Students

The Honors Program is housed in the historic Maeser Building on the southwest part of campus. This quiet corner of campus is surrounded by beautiful grounds and wooded areas. The building is named after Karl G. Maeser, the first principal of Brigham Young Academy (the school that later became Brigham Young University). A bronze statue of Karl G. Maeser stands at the building's east entrance. The Maeser Building was constructed in 1911 and is the oldest building on the current campus. Its marble halls are richly decorated with oak and brass trim. The building was restored in 1985 with modern electrical and ventilation systems, but its historic architecture and decoration were retained.

Facilities for honors students in the Maeser Building include the Honors Reading Room in 150 MSRB, with study tables and a small library of reference works and classics; the Honors Student Lounge in 102 MSRB where students can meet for informal discussions; an art gallery in the lower-floor hall; the Honors Advisement Center in 102A MSRB, where students receive counseling about their honors education; and the Martha Jane Knowlton Coray Lecture Hall in 321 MSRB, where classes, lectures, and musical concerts are held.

Students who have committed to graduate with University Honors and are active participants in the Honors Program are eligible for reduced-rate or free admission to selected musical and theatrical performances, some of which include visiting performers of international renown. They also have priority registration privileges for honors courses. The Honors Program sponsors lectures, concerts, symposia, and socials. The students can also participate in intercampus events with honors students from other universities and colleges. Each week, on Thursdays at 11:00 a.m., during fall and winter semesters, the Honors Program sponsors honors lectures featuring a religious or academic presentation by a professor or member of the community. Students are also invited to participate with the Honors Student Advisory Council, a group of student representatives who assist in policy development, social activities, and academic functions of the Honors Program.

Who Should Participate in Honors

The characteristics that best define honors students are motivation and a strong desire to obtain the most from the educational experience that BYU has to offer. Honors students seek breadth in their education by taking honors courses outside of their majors. They excel within their majors by learning how to conduct research and scholarly work within their chosen fields. They usually tend to work harder and spend more time on their course work than other students, not because their courses are more difficult but because they take courses that interest them. They attend concerts, plays, films, lectures, and art exhibitions, and they participate in informal discussions with their professors and fellow students. Because many of their classes are small and discussion-oriented, they are personally acquainted with their professors. They become well-rounded, literate, and humane scholars whose faith in the restored gospel is strong. Their thirst for knowledge lasts a lifetime. They are not necessarily those with the highest grade-point averages or the highest standardized test scores, nor do all honors students have scholarships.

Approximately 25 percent of the BYU student body participates in honors. To whatever degree students do, they benefit from an enriched education. The Honors Program invites all BYU students who seek enhancement in their educational experience to take advantage of the many opportunities that the Honors Program offers.

Overview of Requirements for Graduation with University Honors

This section provides a brief overview of the requirements to graduate with University Honors. Detailed explanations of each requirement follow this section. The staff in the Honors Advisement Center, 102A MSRB, (801) 422-5497, is available to answer questions about honors requirements. To graduate with University Honors, a student must:

1. Commit to graduate with University Honors and consult with an Honors Advisement Center representative once each semester.
2. Complete the honors curriculum requirement.
3. Complete the honors Great Works requirement.
4. Complete the honors advanced languages requirement.
5. Complete the honors service requirement.
6. Complete the honors thesis requirement.
7. Graduate with a cumulative grade point average of at least 3.5.
8. Submit a graduation portfolio that summarizes the student's honors experiences.

These requirements are intended to enhance all three components of a student's BYU undergraduate education: major education, general education, and religious education. The requirements for graduation with University Honors enhance all three of these components. The honors curriculum, Great Works, and advanced languages requirements enhance the general and religious education components. The honors thesis requirement enhances the major education component.

Detailed Explanations of Requirements for Graduation with University Honors

1. Commitment to Graduate with University Honors and Consult with an Honors Advisement Center Representative Once Each Semester.

Students may commit to graduate with University Honors at any time during their undergraduate years by completing a form available at the Honors Advisement Center. Students who have formally committed to graduate with University Honors have certain privileges, among them the opportunity to preregister for honors courses and to receive reduced-rate admission to certain musical and theatre performances and films. To keep the commitment current, students must enroll in at least one honors course per semester for the first two years in the program and consult with an Honors Advisement Center representative once each semester. Consultation with the advisement center allows the Honors Program to know students' plans so advisement personnel can help them register for the correct classes and keep them informed of honors activities.

2. Honors Curriculum Requirement.

The honors curriculum requirement enhances the general and religious education components of students' undergraduate education. Nearly all honors courses and honors sections of department courses meet the general and religious education requirements that all BYU students must complete. Students should consult the "Honors Program Course Guide" to be sure which general and religious education requirements are met by the courses for which they choose to register.

To fulfill the honors curriculum requirements, students must complete 22 credit hours selected from honors courses and honors sections of department courses, subject to the following limitations:

a. Three of the 22 credit hours must be from one of the following writing courses: HonP 200, Phil 105H, or Engl 200H.
b. No more than 12 credit hours from honors sections of department courses can be used to meet this requirement. Of these, no more than 4 credit hours can be from honors sections of religion courses.
c. No more than 3 credit hours of HonP 214R or 314R can be used to meet this requirement.

All BYU students must complete at least 37.5 credit hours to meet general education requirements and 14 credit hours to meet religious education requirements. Honors options are available for nearly all of these requirements. HonP 499R (honors thesis) does not count as credit for the honors curriculum requirement but can be used as credit for completion of the honors thesis requirement.

3. Great Works Requirement.

The honors Great Works requirement introduces students to the world's treasures of literature, music, theatre, film, and art. It is intended to enhance not just their undergraduate education but their entire life as it encourages them to develop a lifelong pattern of experiencing the great works of humanity. Students can fulfill this requirement entirely on their own, or they may include works of literature, music, theatre, film, and art that they study as part of their course work. BYU provides many opportunities to fulfill this requirement within its course offerings and its rich schedule of musical, theatrical, and artistic productions. Some of the Great Works are part of many honors courses. The Honors Program provides reduced-rate admission for honors students to attend selected performance events. Most faculty and student recitals and most art exhibitions are open to students and the public with no admission charge.

This requirement must be met during the time students are undergraduates. They cannot reduce the requirement by counting works that they studied during high school. Students will benefit most from this requirement if they spread it out over their undergraduate years. Each area requires students to study or attend sixteen works, performances, or exhibitions—which is four per year in each area if spread out over a period of four years. A packet entitled "How to Complete the Honors Great Works Requirement" provides detailed information about this requirement and is available in the Honors Advisement Center (102A MSRB) or electronically at *http://www. byu. edu/honors/*. This packet includes the detailed information students will need and a checklist that they can use to ensure that they properly complete this requirement.

To fulfill this requirement during their four years as an undergraduate, students must:

a. Read sixteen works of literature from the approved reading list in the "How to Complete the Honors Great Works Requirement" packet or from approved substitutions to that list. Students must choose at least one work from each of the following categories of literature in the Western tradition: classical, medieval, renaissance and reformation, seventeenth and eighteenth centuries, nineteenth century, and twentieth century; and at least one work from the non-Western tradition. The remaining nine works can be from any of the time periods and from Western or non-Western traditions. As students make their selections, they should choose at least one work from each of the following fields: science and mathematics, social science, female author, and persons of color.

   Inclusion of works not on the approved list is permitted but requires completion of a substitution letter (information available in the Honors Advisement Center) that must be preapproved by the dean or associate dean of Undergraduate Education before students begin reading the substituted work.
b. Attend theatrical performances, including at least one play by Shakespeare.

c. Attend musical performances. The performances must include at least two symphonies, one concerto, one opera, four faculty or student recitals, one jazz performance, and one dance performance.
d. Attend films presented through BYU's Department of Theatre and Media Arts or the International Cinema program. At least eight of the films should be in a language other than English. (Foreign language films shown in International Cinema have English subtitles.)
e. Attend art exhibitions (either traveling exhibitions or permanent collections) at local art museums (BYU Museum of Art, Springville Museum of Art, and Church Museum of History and Art) and/or at renowned national or international art museums. Students who have the opportunity to travel are strongly encouraged to visit renowned national or international art museums to meet this requirement.
f. As part of their graduation portfolio, students submit 10 response papers that examine two works of literature, two theatrical works, two pieces of music, two films, and two works of art from the lists included in the "How to Complete the Honors Great Works Requirement" packet. The packet also contains detailed instructions on how to write responses.

4. Honors Advanced Languages Requirement.
Honors students must gain proficiency in a foreign language (at least two semesters of foreign language study, or the equivalent) and proficiency in advanced mathematics, statistics, or logic (at least one course from Math 112, 112H, 113, 113H, 119, Stat 221, 221H, Phil 305, or an acceptable substitute). Fulfillment of this requirement meets and exceeds the general education advanced languages requirement.

5. Honors Service Requirement.
Students who participate in honors are multi-talented and highly motivated. The Honors Program encourages students to share their gifts with others through meaningful service. To complete this requirement students must participate in some form of service that draws upon their unique talents and abilities during their undergraduate years. This requirement is flexible in that it allows students to define the form of service they plan to use to meet this requirement. Their contribution may be in a single project or spread out over several projects. Examples of service projects that students have used to complete this requirement include volunteer tutoring of high school or college students; assistance in programs that benefit people who are handicapped, elderly, ill, or impoverished; service as a volunteer in museums, hospitals, parks, or other public facilities; and participation on restoration or conservation projects. This service can be part of activities sponsored by educational, religious, government, business, or charitable organizations, including BYU and the LDS Church, or students can plan and carry out service on their own. For those students who serve full-time LDS missions, the service that meets this requirement should be carried out while a student and should be in addition to any service performed as a full-time missionary. Missions often provide students with skills and opportunities that they can use to provide significant service after their full-time missions are completed.

6. Honors Thesis Requirement.
The honors thesis requirement gives students the opportunity to participate in original research or creative work in the discipline of their major. Honors students typically complete the thesis requirement during their junior and senior years after they have obtained sufficient training in their major to conduct independent work in a specialized academic field. Each student chooses a faculty advisor in the department of his or her major and in consultation with the advisor chooses a thesis topic.

Students should complete significant course work within the subject area of the thesis (usually at least 30 credit hours, several of which are from 300- or 400-level major courses). The thesis is intended to acquaint students firsthand and in depth with the type of scholarly work that characterizes the field they intend to pursue professionally. For these reasons, only under very rare circumstances is an honors thesis topic outside the major area approved. In most cases students who complete a thesis outside the major do so in a very closely related area. In a few cases a thesis topic outside a student's major may be approved if the student intends to pursue a career in the area of the thesis and has significant academic preparation in that area. For example, a music major who intends to enroll in medical school may have taken 30 credit hours of course work in chemistry, mathematics, physics, and biology in preparation for medical school and may complete a thesis in an area such as cancer research, even though the thesis has little to do with the student's major. In the absence of such justification, students should not pursue thesis work outside their majors.

Before students begin work on an honors thesis, they must submit a written thesis proposal and have it approved by the Honors Program Office. Guidelines for writing the thesis proposal are available in a packet entitled "How to Complete the Honors Thesis Requirement" available in the Honors Advisement Center (102A MSRB) or electronically at *http://www.byu.edu/honors/*. Students can request financial support as a part of the thesis proposal. Many honors students obtain competitive undergraduate research grants from BYU's Office of Research and Creative Activities for honors thesis work. Also, many professors and departments have research funding that can be devoted to research on an honors thesis. Personnel in the Honors Program Office can help students explore the various opportunities that are available to support their work on an honors thesis.

After the thesis research is complete and the thesis is written, each student must present a thesis defense. The thesis advisor, a faculty referee, and the dean or an associate dean of Undergraduate Education will attend the thesis defense. After the thesis defense is completed and all final changes are incorporated into the thesis, the Honors Program will have the thesis bound and make it available for others to read.

7. Graduate with a Cumulative Grade Point Average (GPA) of at Least 3.5.
Honors students are not necessarily those with the highest GPAs, although most perform very well in their classes. Rather than select easy courses to receive high grades, honors students tend to seek challenging courses taught by excellent professors, and they participate in a variety of activities. Honors students are expected to perform well academically, defined as a minimum GPA of 3.5 at the time of graduation.

8. Graduation Portfolio Summarizing the Honors Experiences.
The honors portfolio is a record of a student's undergraduate experience. It is a file kept by all candidates for University Honors graduation and is submitted for review at the same time as the completed thesis. The portfolio contains samples of students' best academic work from their undergraduate program. Although they should place their best work in the portfolio, the file is intended as a record of growth; thus early struggling attempts also have their place. It is always illuminating to students to see where they have been and how far they have come.

When submitted for examination, the portfolio should contain (but is not limited to):

a. A one- or two-page summary, semester by semester, of the major highlights and achievements of the student's undergraduate experience.
b. A one-page evaluation of the most memorable service the student contributed as an undergraduate.
c. A current transcript indicating a GPA of at least 3.5.
d. A list of three faculty members who know the student and can recommend his or her academic record.
e. A representative collection of the student's best academic work, reflecting educational progression throughout the undergraduate years.
f. A Great Works experience log.
g. Ten Great Works response papers.

Note: The general Web site for the BYU Honors Program is *http://www..byu.edu/honors/*.

Honors Courses

Dates and times for honors classes are listed in the class list of the class schedule under Honors or by any class with the suffix *H* accompanied by a section number in the 200s.

The *Honors Program Course Guide* also contains a complete list of honors courses and detailed course descriptions. It is an essential supplement to the undergraduate catalog and the class schedule. To obtain the course guide or further information about the Honors Program, contact the Honors Advisement Center, 102A MSRB, telephone (801) 422-5497.

1. Languages of Learning

First-Year Writing

200. Honors University Writing. (3:3:0)
University writing and critical reading designed for those with AP English credit or those intending to graduate with University Honors. Meets GE requirement in First-Year Writing.

Advanced Writing

300. Advanced Writing. (3:3:0) Prerequisite: completion of First-Year Writing requirement.
Approaches to advanced writing that differ from departmental offerings. Meets GE Advanced Writing requirement.

Advanced Languages: Mathematics

250. Math Modeling—Toward a Personal Understanding of the World. (3:3:0)
Developing skills in arriving at quantitative models for the world as we see it. Some math skills reviewed and some new ones introduced.

2. Liberal Arts Core

201. Civilization 1. (3:3:0)
Colloquium or seminar in the history of civilization from antiquity to ca. A.D. 1500. Meets the GE core requirement for Civilization 1.

202. Civilization 2. (3:3:0)
Colloquium or seminar in the history of civilization from ca. A.D. 1500 to the present. Meets the GE core requirement for Civilization 2.

240. American Government and Society. (3:3:0)
Meets AHtg 100 GE core requirement.

259. Physical Science. (1–6:6:0)
Meets the PhyS 100 GE core requirement.

260. Biology. (1–6:6:0)
Meets the Biol 100 GE core requirement.

3. Honors Arts and Sciences Lower-Division Electives

Honors 203R–211R: Arts and Letters

203R. Literature. (1–6:6:0 ea.)
Seminar in literature.

204R. Fine Arts. (1–6:6:0 ea.)
Seminar in art, design, music, theatre, or cinema.

205R. Philosophy. (1–6:6:0 ea.)
Seminar in philosophy or such related areas as religious and moral thought.

206R. Humanities. (1–6:6:0 ea.)
Seminar in the humanities.

207R. Language. (1–6:6:0 ea.)
Seminar in semantics, grammar, linguistics, or history of language.

210R. Civilization and Culture. (1–6:6:0 ea.)
Seminar on the historical development of Western civilization and culture or non-Western civilizations and cultures.

211R. Colloquium in Arts and Letters. (1–6:6:0 ea.)

Honors 221R–230R: Social and Behavioral Sciences

221R. Colloquium in the Social Sciences. (1–6:6:0 ea.)

222R. History. (1–6:6:0 ea.)
Seminar in history or such related areas as archaeology.

223R. Behavioral Science. (1–6:6:0 ea.)
Seminar in psychology, psychiatry, organizational behavior, etc.

224R. Political Science. (1–6:6:0 ea.)
Seminar in political science, international relations, jurisprudence, or political and economic geography.

225R. Sociology. (1–6:6:0 ea.)
Seminar in sociology or family science.

226R. Anthropology. (1–6:6:0 ea.)
Seminar in anthropology or related areas.

227R. Economics. (1–6:6:0 ea.)
Seminar in economics or related areas.

228R. Education. (1–6:6:0 ea.)
Seminar in education or related areas.

229R. Business. (1–6:6:0 ea.)
Seminar in business or related areas.

230R. Civilization and Culture. (1–6:6:0 ea.)
Seminar on the historical development of Western civilization and culture or non-Western civilizations and cultures.

Honors 241R–246R: Natural Sciences

241R. Colloquium in the Sciences. (1–6:6:0 ea.)

242R. Mathematics. (1–6:6:0 ea.)
Seminar in mathematics.

243R. Physical Science, Elective. (1–6:6:0 ea.)
Seminar in astronomy, chemistry, geology, or physics.

244R. Biological Science, Elective. (1–6:6:0 ea.)
Seminar in biology, botany, microbiology, or zoology.

245R. Technology. (1–6:6:0 ea.)
Seminar in computer science, engineering, technology, or related areas.

246R. Statistics. (1–6:6:0 ea.)
Seminar in statistics.

4. Honors Arts and Sciences Upper-Division Electives

Honors 303R–310R: Arts and Letters

303R. Literature. (1–6:6:0 ea.)
Upper-division seminar in literature.

304R. Fine Arts. (1–6:6:0 ea.)
Upper-division seminar in art, design, music, theatre, or cinema.

305R. Philosophy. (1–6:6:0 ea.)
Upper-division seminar in philosophy or such related areas as religious and moral thought.

306R. Humanities. (1–6:6:0 ea.)
Upper-division seminar in the humanities.

307R. Language. (1–6:6:0 ea.)
Upper-division seminar in semantics, grammar, linguistics, or history of language.

310R. Civilization and Culture. (1–6:6:0 ea.)
Upper-division seminar on the historical development of Western civilization and culture or non-Western civilizations and cultures.

Honors 322R–330R: Social and Behavioral Sciences

322R. History. (1–6:6:0 ea.)
Upper-division seminar in history or such related areas as archaeology.

323R. Behavioral Science. (1–6:6:0 ea.)
Upper-division seminar in psychology, psychiatry, organizational behavior, etc.

324R. Political Science. (1–6:6:0 ea.)
Upper-division seminar in political science, international relations, jurisprudence, or political and economic geography.

325R. Sociology. (1–6:6:0 ea.)
Upper-division seminar in sociology or family science.

326R. Anthropology. (1–6:6:0 ea.)
Upper-division seminar in anthropology or related areas.

327R. Economics. (1–6:6:0 ea.)
Upper-division seminar in economics or related areas.

328R. Education. (1–6:6:0 ea.)
Upper-division seminar in education or related areas.

329R. Business. (1–6:6:0 ea.)
Upper-division seminar in business or related areas.

330R. Civilization and Culture. (1–6:6:0 ea.)
Upper-division seminar on the historical development of Western civilization and culture or non-Western civilizations and cultures.

Honors 342R–346R: Natural Sciences

342R. Mathematics. (1–6:6:0 ea.)
Upper-division seminar in mathematics.

343R. Physical Science, Elective. (1–6:6:0 ea.)
Upper-division seminar in astronomy, chemistry, geology, or physics.

344R. Biological Science, Elective. (1–6:6:0 ea.)
Upper-division seminar in biology, botany, microbiology, or zoology.

345R. Technology. (1–6:6:0 ea.)
Upper-division seminar in computer science, engineering, technology, or related areas.

346R. Statistics. (1–6:6:0 ea.)
Upper-division seminar in statistics.

Other Honors Courses

100. Honors Experience. (1:1:0)
Introductory seminar for incoming honors students.

214R. Readings in the History of Ideas. (1–6:6:0 ea.)
Seminar in scientific, political, and philosophical thought based on texts treating the human legacy, society, science, ethical challenges, aesthetics, etc.

301R. Publication Lab. (1–3:0:3 ea.) Prerequisite: instructor's consent.
Internship experience in acquiring, evaluating, editing, designing, typesetting, and proofreading copy for a student journal.

314R. Readings in the History of Ideas. (1–6:6:0 ea.)
Upper-division seminar in scientific, political, and philosophical thought based on texts treating the human legacy, society, science, ethical challenges, aesthetics, etc.

492R. Special Projects. (1–3:Arr.:Arr. ea.)
Special projects conducted under the supervision of the Honors Program.

499R. Honors Thesis. (1–6:0:0 ea.)

Departmental Sections of Honors Courses

Selected departments offer designated honors sections of introductory courses that meet particular general education requirements as well as honors requirements. In addition, Religious Education offers honors sections of religion courses that meet other university requirements. Approved departmental honors courses include:

Languages of Learning

First-Year Writing:
Engl 200H.
Phil 105H.

Mathematics:
Math 112H, 113H.
Stat 221H.

Foreign Language:
Fren 202H.

Advanced Writing:
Engl 311H, 312H, 315H, 316H.
MCom 320H.
Phil 311H.

Liberal Arts Core

Core Requirements:
AHtg 100H.
Biol 100H.
ClCv 201H, 202H
CmLit 201H, 202H.
Engl 201H, 202H.
Hist 201H, 202H.
Hum 201H, 202H.
Music 201H, 202H.
Phil 201H, 202H, 210H, 211H.
PlSc 201H, 202H.

Arts and Sciences Electives

Arts and Letters:
ArtHC 111H.
ClCv 110H, 241H.
Dance 260H.
Hum 261H, 262H.
Music 101H.
Phil 110H, 205H.

Social and Behavioral Sciences:
Anthr 101H, 110H.
Econ 110H.
MFHD 160H.
PlSc 110H, 150H.
Psych 111H.
Soc 111H, 112H.

Natural Sciences:
Chem 111H.
Geol 101H.
Phscs 127H.

University Requirements

Religious Education:
RelA 121H, 122H, 211H, 212H, 301H, 302H, 304H, 315H, 327H.
RelC 130H, 234H, 261H, 324H, 325H, 333H, 341H, 342H, 343H, 344H, 351H, 355H, 356H, 431H.

Students should consult the departmental listings in this catalog, the current class schedule, and the Honors Program Course Guide for further details about these courses.

College of Biology and Agriculture

301 WIDB
(801) 422-3963
Internet: http://bioag.byu.edu

Dean: R. Kent Crookston, Professor, Plant and Animal Sciences
Associate Dean: John D. Bell, Professor, Physiology and Developmental Biology
Associate Dean: David L. Kooyman, Associate Professor, Microbiology and Molecular Biology
Assistant Dean: John D. Lee
Assistant Dean: Steven L. Taylor

The following departments are included within the College of Biology and Agriculture:

Integrative Biology (InBio)
Microbiology and Molecular Biology (MMBio)
Nutrition, Dietetics, and Food Science (NDFS)
Physiology and Developmental Biology (PDBio)
Plant and Animal Sciences (PAS)

Courses offered in biology give students a general understanding of the fundamental principles of plant, animal, and microbial life and their relationship to the world. Specialized courses emphasizing teaching and research are offered to majors in the several branches of biological science.

Agricultural sciences address three of the great dilemmas facing mankind in the twenty-first century: harnessing biological technology to meet the needs of an expanding human population; assessing and minimizing the impact of human activities on an increasingly vulnerable environment; and adapting urban landscapes to meet increasing water, space, and other resource limitations.

Alphabetical List of Majors Offered in the College of Biology and Agriculture

Bio-Agribusiness Management (PAS)
Bioinformatics (InBio)
Biology (Biol)
Biology Composite Teaching (InBio)
Biophysics (PDBio)
Biotechnology (PAS)
Clinical Laboratory Science (MMBio)
Environmental Soil Science (PAS)
Didactic Program in Dietetics (NDFS)
Food Science (NDFS)
Integrative Biology (InBio)
Landscape management (PAS)
Microbiology (MMBio)
Molecular Biology (MMBio)
Neuroscience (Neuroscience Center)
Nutritional Science (NDFS)
Physiology and Developmental Biology (PDBio)
Plant Biology (InBio and PAS)
Wildlife and Wildland Conservation (InBio)

See the departmental sections in this catalog for details regarding these programs.

College Advisement Center

Audrey L. Megerian, Director
380 WIDB
(801) 422-3042
Hours: 8:00 a.m. to 5:00 p.m., Monday–Friday

The goal of the College of Biology and Agriculture Advisement Center is to assist students with academic planning and to ensure that their progress from orientation through graduation proceeds as smoothly as possible. The center maintains student records, advises on general education and university requirements, coordinates scholarships, and provides academic information of all kinds.

Health Professions Advisement Center

Don D. Bloxham, Director
380 WIDB
(801) 422-3044
Internet: http://healthpro.byu.edu
Hours: 8:00 a.m. to 5:00 p.m., Monday–Friday

The Health Professions Advisement Center assists and counsels students interested in health professions. Professional school catalogs and other pertinent materials are available in this office. Advisors help students plan their course of study at BYU and apply for admission to health professional schools in the following fields:

chiropractic
dental hygiene
dentistry
health administration
medicine
optometry
osteopathic medicine
pharmacy
podiatry
physician assistant

Preveterinary Medicine

Beverly L. Roeder, Advisor
386 WIDB
(801) 422-6873

Students interested in veterinary medicine are encouraged to incorporate required preveterinary curriculum into an academic program of their choosing. See the description of the biology major for additional information.

Ezra Taft Benson Agriculture and Food Institute

Allen C. Christensen, Director
110 B-49

The major objective of the Benson Institute is to raise the quality of life among the people of the world through improved nutrition and enlightened agricultural practices. Cooperating with universities in the developing world, the institute emphasizes developmental research in village nutrition and agricultural production.

M. L. Bean Life Science Museum

H. Duane Smith, Director
Douglas C. Cox, Assistant Director
290 MLBM
Internet: http://bioag.byu.edu/mlbean/
Hours: 10:00 a.m. to 9:00 p.m., Monday–Friday

Current museum curators are as follows:

Duane Atwood, Collections Manager, Herbarium
Richard Baumann, Curator of Insects
Lee Braithwaite, Curator of Shells
Shawn Clark, Collections Manager, Insects
Keith Crandall, Associate Curator of Crustaceans
Lee Johnson, Assistant Curator of Fungi
Duke Rogers, Associate Curator of Mammals
Dennis Shiozawa, Curator of Fish
Jack Sites, Curator of Reptiles and Amphibians
Wesley Skidmore, Collections Manager, Vertebrates
Larry St. Clair, Curator of Lichens
Stanley Welsh, Curator of Herbarium
Clayton White, Curator of Birds
Michael Whiting, Assistant Curator of Insects

The museum offers a broad range of educational opportunities for students, from specialized graduate research in the various systematic collections housed in the museum to impromptu tours for the casual visitor. Many university classes utilize the extensive holdings, but the museum also serves the community by providing educational opportunities for elementary and secondary schools as well as civic groups.

The Botanical Collection includes herbaria of vascular plants, mosses, liverworts, lichens, algae, and fungi from many parts of the world. The vascular plant collection includes more than 10,000 species represented by more than 500,000 herbarium sheets. The collection is made up principally of plants from western North America but include many materials from the eastern states, Europe, Mexico, Australia, and the Pacific Isles. Acquisitions of plants from Alaska, Greenland, Siberia, and the Canadian Arctic have added significantly to the collections of Arctic plants. Lichens and mosses number about 100,000.

The herbarium includes more than 2,000 specimens from the Mediterranean region of Europe and from the Middle Eastern countries of Iran and Afghanistan. The fossil plant collections contain more than 10,000 specimens. The botanical and zoological collections housed in the museum are a valuable university resource and document systematic and taxonomic research.

The Zoological Collections consist of a large series of vertebrate and invertebrate species from North America and from many foreign countries. These materials are available to teachers, advanced students, and visiting scientists.

The invertebrate collection includes more than a million insect specimens (emphasizing butterflies, flies, and beetles) and their near relatives as well as other invertebrate phyla. Medically important arthropods such as fleas, lice, mites, and ticks are well represented. A large and valuable collection of invertebrate sea shells is also present. These collections have been gathered from many sources—from scientists engaged in research to amateur or hobbyist collectors. The invertebrate collections are a sampling of specimens from all parts of the world but are particularly strong in their representation of the environments of the Great Basin.

The vertebrate collections consist of thousands of fish, amphibian, reptile, bird, and mammal research specimens. In addition to the representative series of local species, the vertebrate collections include birds' eggs, South and Central American birds, and Hawaiian fishes. Staff members, graduate students, and friends of the university have contributed material from Mexico, South America, Africa, Formosa, Malaysia, the South Pacific islands, and other areas throughout the world. The vertebrate collections also include big game wildlife collections gathered from around the world.

The Lytle Preserve in southwestern Utah provides a 600 plus acre area as an outdoor classroom in the northernmost extension of the Mojave Desert. It is managed for natural study and ecological research in a unique desert setting.

College of Engineering and Technology

270 CB
(801) 422-4326

Dean: Douglas M. Chabries, Professor, Electrical and Computer Engineering

Associate Dean: David K. Anthony
Associate Dean: Richard W. Christiansen, Professor, Electrical and Computer Engineering
Associate Dean: Jordan J. Cox, Associate Professor, Mechanical Engineering

The College of Engineering and Technology is composed of the following four departments and the School of Technology:

Chemical Engineering
Civil and Environmental Engineering
Electrical and Computer Engineering
Mechanical Engineering
School of Technology

The world's expectation of its engineering and technical personnel will range from providing for interplanetary exploration and travel to solving such earthly problems as pollution, transportation, efficient energy use, new materials, and new products and manufacturing processes, as well as many other exciting and challenging needs.

The solution to man's present and future problems will require people trained as craftsmen, technicians, technologists, and engineers working together as a team. Each of the departments in the College of Engineering and Technology has a faculty with special training and advanced education, including years of work experience, which qualify them to prepare students for these technical careers. Each department also has modern, well-equipped laboratories that provide exciting and valuable hands-on experience.

It is very important that students understand the differences among the various college programs and decide on a career as early as possible. Information regarding scheduling and course requirements leading to a timely graduation can be obtained in the college advisement center.

Professional Bachelor's Program

The Chemical, Civil and Environmental, Electrical and Computer, and Mechanical Engineering Departments and the School of Technology (except technology teacher education) each offer a bachelor of science degree composed of a preprofessional program and a professional program. Approximately the first two years in these departments are considered to be preprofessional, and the remaining two years constitute the professional program. Any student who is admitted to the university may select a program in any department as a possible major, and all students are encouraged to declare their intended major on first entering the university. Technology teacher education majors may proceed into the junior year without restriction, but engineering and technology majors may not register for upper-division departmental courses (300 level and above) until they are formally accepted into a professional program. Industrial design students must apply to the major as early as their senior year in high school.

Students should refer to the department sections of this catalog for specific department requirements. Additional details and application forms may be obtained from the college advisement center.

College Advisement Center (CAC)

Pamela O. Williamson, Supervisor
264 CB
(801) 422-4325

As a center for students, the CAC provides up-to-date records and information and help with registration, graduation requirements, policies and procedures, fields of study, changes of major, and many other aspects of the college's academic life.

College Programs

The alignment of engineering with technology and technology education, construction management, and industrial design makes it possible to offer, in a single college, a broad spectrum of educational opportunities within which students can prepare for a career in our challenging technological world. This offering encompasses four-year baccalaureate degree programs, one-year master of science and master of industrial education programs , and a program that leads to a doctor of philosophy degree in engineering.

The bachelor's degree program in engineering is also excellent preparation for other professional careers such as law, medicine, and business.

General Education Requirements

All students who receive a baccalaureate degree must satisfy the university's General Education requirements. Summaries of these requirements are available in the advisement center.

It is important to maintain constant progress in the major technical area because of prerequisite structure. Students are cautioned against devoting early semesters solely toward the completion of General Education requirements, thus falling behind in technical areas. Instead, follow an integrated study program of General Education and technical requirements.

Engineering

Engineering, with a strong emphasis on mathematics and the basic sciences, has been offered at Brigham Young University since 1952. Graduates find acceptance in the best graduate schools and in top industrial organizations. Many are in key positions in leading industries or have important assignments with government agencies. With the evident need extending well into the future for those skilled in solving technological problems, an engineering degree from BYU is a valuable professional accomplishment.

Students who plan to enroll in engineering fall semester should have successfully completed the following high school courses or their equivalents:

3 units of English
4 units of mathematics, consisting of 2.5 units of algebra, 1 unit of geometry, and 0.5 unit of trigonometry. This should qualify one to begin college mathematics with analytic geometry and calculus.
1 unit of physical science (either chemistry or physics)
1 unit of drafting or mechanical drawing

Students who have not completed these requirements should plan to enter BYU *summer term*, beginning in June. If deficiencies are not too serious, they can probably be made up by fall semester.

Each of the five engineering programs (chemical, civil and environmental, electrical, computer, and mechanical) leads to a four-year bachelor of science degree. Each degree program is accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology, Inc. (ABET).

To complete these programs in less total time, students can take advantage of the spring and summer terms' offerings.

Professional Registration

Engineering graduates are encouraged to become registered professional engineers. Professional registration promotes the engineering profession, enhances employment opportunities, protects the public welfare, and in many instances is a requirement. State boards have set minimum standards of competence and conduct for engineers and have established a process whereby one may become registered. There are four steps in this process: graduation from an approved four-year engineering program, passing of the Fundamentals of Engineering (FE) exam, completion of four years of acceptable engineering experience, and passing of the Principles and Practice of Engineering (PE) exam. Offered twice a year, in April and October, the FE exam should be taken in October because the April schedule may conflict with finals. Application must be made through the State Board of Registration. Those who pass the PE exam attain the status of a registered professional engineer and earn the right to publicly represent themselves as an engineer. Further details on professional registration can be found in the departmental sections of this catalog and at the College of Engineering and Technology Advisement Center.

Prearchitectural Curriculum

Because BYU does not offer an architecture degree, it is suggested that students identify an architectural school from which to receive a degree. Then, by carefully studying its program, a student can enroll in a limited number of applicable classes at BYU. Early transfer to this selected school (unless it requires a bachelor's degree for admission) will allow a minimum credit loss. A list of accredited architecture schools and additional information can be obtained in the advisement center. Interested students should talk to a faculty advisor in the construction management program within the School of Technology.

College of Family, Home, and Social Sciences

990 SWKT
(801) 422-2083

Dean: David B. Magleby, Professor, Political Science
Associate Dean: Renata Forste, Associate Professor, Sociology
Associate Dean: James M. Harper, Professor, School of Family Life
Associate Dean: Rulon Pope, Professor, Economics

Academic Departments and Curriculum Areas

American Heritage
Anthropology
Economics
Family Life
Geography
History
Political Science
Psychology
Social Work
Sociology

Research and Academic Support Areas

Camilla Eyring Kimball Chair of Home and Family Life
Charles Redd Center for Western Studies and Lemuel H. Redd Jr. Chair in Western History
Comprehensive Clinic
Family Studies Center
J. Fish and Lillian F. Smith Chair of Economics
Joseph Fielding Smith Institute for Latter-day Saint History
Museum of Peoples and Cultures
New World Archaeological Foundation
Women's Research Institute

College Advisement Center

Larry K. Taylor, Supervisor
151 SWKT
(801) 422-3541

Advisors are prepared to assist students in the selection of General Education offerings that will contribute to a broad education. Advisors also assist faculty in offering counsel for specific majors and in monitoring a student's progress toward graduation.

Purposes

The College of Family, Home, and Social Sciences is composed of departments whose primary focus is people.

Of particular concern is the family as the basis of human society. Each of the basic disciplines represented in the college has a special contribution to make to the family. Some are concerned with helping people to be healthy, responsible, and caring; some concentrate on helping families improve the quality of life; some focus on the home as a laboratory for family enhancement; and some explore the relationship between the family and the social systems that constitute the larger society.

The instructional program of the College of Family, Home, and Social Sciences has two major emphases. One provides a broad education that helps develop an appreciation of the values that establish and strengthen modern civilization and that prepares individuals to contribute effectively as citizens. The other prepares professionals to discover truths that reveal our heritage and to provide significant services to individuals, families, and institutions.

Degrees Offered

Bachelor's, master's, and doctoral degrees are offered in the college. See the individual department and program listings in this catalog for specific degrees offered and the requirements for each.

Scholarships and Awards

Scholarships and awards are available to qualified students. Applications may be obtained from the Financial Aid Office, A-141 ASB.

Women's Studies Minor

Bonnie Ballif-Spanvill, Director
337 SWKT
(801) 422-4609

The Women's Research Institute sponsors a minor in Women's Studies. This program educates students in the findings, theory, and research methodologies fundamental to the women's studies field, and fosters critical thinking and superior scholarship. The research and study of women and their viewpoints in traditional academic disciplines creates a new framework of interpretation and scholarship for our historical and cultural traditions. Courses in the minor represent many disciplines and provide a variety of perspectives on topics relating to women's experiences.

See the Women's Research Institute section of this catalog for course requirements for this minor.

Family Studies Center

D. Russell Crane, Director
350 SWKT
(801) 422-2948

The Family Studies Center is dedicated to identifying characteristics associated with strong families and the processes by which they develop. At the heart of the center's mission is a deep and abiding desire to understand families and family members and to assist them to achieve their full potential. The center understands the important link that research can and must have to families themselves. Research that illuminates the relationship between the family and other important institutions such as governments, schools, and business, as well as social contexts including households, neighborhoods, and cultures, is germane to the center's research program. Relevant information is presented through publications, conferences, symposia, seminars, and lectures.

The center helps organizations design and implement programs to aid couples and individuals in building and sustaining stronger families. Programs are designed not only to strengthen families but also to prevent critical family problems, including family violence, child abuse and neglect, divorce, financial mismanagement, and substance abuse. In addition, public policies that strengthen families are discussed and developed.

Museum of Peoples and Cultures

Marti Lu Allen, Director
105 ALLN

The Museum of Peoples and Cultures is located in Allen Hall at 700 North 100 East in Provo. Museum hours are from 9:00 a.m. to 5:00 p.m. Monday through Friday. Guided tours are available for a nominal fee and can be scheduled by calling the museum at (801) 422-0020.

Educational Opportunities. Classes in museum practices designed to provide students with practical experience in collections care and management—including computer applications, exhibition curation, and educational programming—are available with approval. Museum practice courses are taught by the museum's staff, who are adjunct anthropology faculty (see listings in the Anthropology section of this catalog). The museum also employs several students each semester to assist in collections work and welcomes volunteers to assist in educational and promotional work.

Anthropological Collections and Research Opportunities. Museum collections contain prehistoric and ethnographic artifacts from various parts of the world. The bulk of holdings are from the Southwest, Mesoamerica, Polynesia, ancient Peru, and the Great Basin, especially Utah Valley. The museum also cares for a collection of more than 20,000 black and white and color photographs that document BYU archaeological research and artifactual materials. The museum encourages students to inquire about research possibilities using its collections.

For a free video go to *http://www.gohip.com/free_video.*

Joseph Fielding Smith Institute for Latter-day Saint History

Jill Mulvay Derr, Director
121 KMB
(801) 422-4023

The Joseph Fielding Smith Institute for Latter-day Saint History is a research institute charged with the scholarly study of the history, people, institutions, and culture of the Latter-day Saints. Its mission is to use the materials of history and the tools of scholarship to research, write, and publish works about the Latter-day Saints generally. Documentary editing—the publication of many of the most important records documenting Latter-day Saint history—is a major emphasis.

Smith Institute personnel are historians who seek to understand and, where appropriate, emphasize the religious context of LDS history, including the vision and faith that underlie many significant events. The institute's professorial faculty also teach courses in history, LDS Church history, and other disciplines related to their fields of expertise and advise students whose major papers, theses, and dissertations address Mormon history topics. The institute seeks to facilitate research by other scholars in LDS Church history as well. Limited support for research and publication in LDS Church history is available to faculty members from other departments within the university either as small research awards or as an exchange of teaching and research assignments with institute faculty.

Joseph Fielding Smith Institute Faculty

Research Professors

Bushman, Richard L. (1999) BA, Harvard Coll., 1955; MA, PhD, Harvard U., 1960, 1961.
Esplin, Ronald K. (1980) BA, U. of Utah, 1969; MA, U. of Virginia, 1970; PhD, Brigham Young U., 1981.
Underwood, Grant (2000) BA, MA, Brigham Young U., 1977, 1981; PhD, U. of California, Los Angeles, 1988.
Walker, Ronald W. (1980) BS, MA, Brigham Young U., 1961, 1965; MS, Stanford U., 1968; PhD, U. of Utah, 1977.

Associate Research Professors

Derr, Jill Mulvay (1998) BA, U. of Utah, 1970; MA, Harvard U., 1971.
Hartley, William G. (1980) BA, MA, Brigham Young U., 1965, 1969.
Jensen, Richard L. (1980) BA, Utah State U., 1968; MA, Ohio State U., 1972.

Senior Research Fellows

Allen, James B. (1963) BS, Utah State U., 1954; MA, Brigham Young U., 1957; PhD, U. of Southern California, 1963.
Anderson, Richard L. (1955) BA, Brigham Young U., 1951; JD, Harvard U., 1954; MA, Brigham Young U., 1957; PhD, U. of California, Berkeley, 1962.
Jessee, Dean C. (1980) BA, MA, Brigham Young U., 1956, 1959.
Madsen, Carol Cornwall (1980) BA, MA, PhD, U. of Utah, 1957, 1977, 1985.
Porter, Larry C. (1970) BS, Utah State U., 1957; MA, PhD, Brigham Young U., 1966, 1971.

Emeritus

Beecher, Maureen Ursenbach (1980) BS, Brigham Young U., 1958; MA, PhD, U. of Utah, 1966, 1973.

College of Fine Arts and Communications

A-501 HFAC
(801) 422-2819

Dean: K. Newell Dayley, Professor, Music
Associate Dean: Robert T. Barrett, Professor, Visual Arts
Assistant Dean: Scott M. Boyter

The following departments and school are in the College of Fine Arts and Communications:

Communications
School of Music
Theatre and Media Arts
Visual Arts

Music dance theatre is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of its School of Music and Department of Theatre and Media Arts and the College of Health and Human Performance's Department of Dance.

The College of Fine Arts and Communications teaches students to think, to feel, to perform, and to communicate. Its purpose is to give students the knowledge and skills requisite to a higher education in fine arts and communications. It opens the doors to the world of truth and beauty for exploration by majors and nonmajors alike. Its programs require discipline, critical analysis, research, empathy, and integrity as the means to acquire knowledge and competency in various areas of study encompassed by the college.

The college's classroom instruction is augmented by off-campus internship programs and on-campus laboratory experiences. In addition, student and faculty touring groups instruct and entertain Church members and friends across the globe. Journalism students who edit the *Daily Universe*, a student laboratory newspaper, are advised by faculty professionals. KBYU-TV, KBYU-FM, and the Museum of Art are also operated under the direction of the college.

Members of the faculty are competent, dedicated men and women who are concerned about the success of their students. The college also brings to campus distinguished professionals for special lectures and artistic performances. Housed in the Harris Fine Arts Center and the Brimhall Building, the college includes five theatres; two concert halls; three art galleries; design, journalism, advertising, broadcast, film, and music laboratories; and many music practice and rehearsal rooms.

Enrollment in a Major Program

Because **enrollment** in most degree programs in the College of Fine Arts and Communications **is limited** by the availability of resources such as facilities, equipment, and faculty, students are required to follow a specific application process designed to assess individual ability, preparation, and potential. This process also helps each student evaluate the level of accomplishment they might expect to experience in the major and, after graduation, in the profession itself.

Students are encouraged to carefully study the requirements of the major program they desire to enter. This will help each determine if the program really fits their personal goals and educational objectives. Through a careful review of the catalog, other possible majors can also be considered to make certain one is aware of all the options that might fit their primary and secondary areas of interest. Students may also find additional information on career and educational options by visiting the Counseling and Career Center (1500 WSC).

Applications for degree programs in the college are available from the college advisement center. Students preparing to apply for entrance into a major program must make certain that they complete all of the prerequisite courses and/or specific requirements stipulated in the application process. If they need further assistance, the reception desk in the college advisement center (D-444 HFAC) can provide information about the next regularly scheduled **Major Application Seminar,** where they can meet and visit with faculty from the major program they desire to enter.

The application process for each major has been structured to be as fair and impartial as possible, and those who evaluate applications endeavor to admit as many into each program as possible. But enrollment limitations sometimes exclude those who would succeed in the program if they could only be admitted. Those who are not successful in the application process are encouraged to move quickly and decisively toward an alternative major program.

Students admitted to a major program in the College of Fine Arts and Communications are assigned to one of the academic advisors in the college advisement center. The advisors help each student structure a plan for timely graduation and assist with problems and issues that may arise along the way. As students become familiar with the faculty in their area of study, they are able to identify those who are best prepared to assist them in learning more about opportunities following graduation.

College Advisement Center

Brenda Butterfield, Supervisor
D-444 HFAC
Telephone: (801) 422-3777
E-mail: cfacadvise@byu.edu
Internet: www.byu.edu/cfac/advisement/index.html)

Students can receive help in the following ways:

1. This catalog outlines graduation requirements in the areas of emphasis encompassed within the disciplines of communications, music, music dance theatre, theatre and media arts, and visual arts.
2. Assigned faculty members are available to students desiring an assessment of potential performance and career opportunities.
3. After a student has been admitted to a major, CAC advisors will plan student schedules and will keep individual student records.
4. Students will apply for graduation with their academic advisor, at which time general education, university, and major requirements are checked for graduation.
5. Students are cleared for graduation by the college advisement center.

Scholarships and Awards

Scholarships, performance awards, and grants-in-aid are available to qualified students.

Applications for academic scholarships can be obtained at the Scholarship Office (A-41 ASB, (801) 422-4104). Performance awards are offered by each of the academic units within the college. Applications and information about auditions for performance awards can be obtained by contacting the appropriate department or school.

For information about graduate scholarships, fellowships, and grants-in-aid, see the current BYU Graduate Catalog.

College of Health and Human Performance

212 RB
(801) 422-2645

Dean: Robert K. Conlee, Professor, Physical Education
Associate Dean: Thomas S. Catherall, Professor, Recreation Management and Youth Leadership
Associate Dean: Sara Lee Gibb, Professor, Dance

The following departments are in the College of Health and Human Performance:

Dance
Health Science
Physical Education
Recreation Management and Youth Leadership

The mission and goals of the College of Health and Human Performance align with the institutional objectives of Brigham Young University by providing an "environment that increases faith in God and the restored gospel, is intellectually enlarging, is character building, and leads to a life of learning and service" (Merrill J. Bateman, Objective 1, "Institutional Objectives," presidential address, 1999 Annual University Conference). The college contributes to the total development of students and faculty by "educat[ing] the minds, [bodies], and spirits of students" (ibid.).

A challenging environment emphasizes the achievement of excellence according to one's aptitudes in the various areas of human development. A foundation for continuous learning prepares individuals to serve their professions effectively, meet personal challenges, care for their families, and serve as responsible citizens.

Goals

1. Provide professional preparation in the academic programs of dance, health, physical education, and recreation management and youth leadership.
2. Advance truth and knowledge through quality research and creative works in areas of specialization in the various disciplines that can contribute to the solution of world problems. Such works are often cooperative efforts between faculty and students.
3. Help students obtain the knowledge, skills, and motivation necessary to maintain a healthy lifestyle and improve their neuromuscular skills in dance, sport, and fitness activities.
4. Sponsor outstanding performing groups in dance that favorably promote the university and the Church among alumni, Church members, friends, and others in this country and throughout the world.
5. Contribute to the knowledge, health, and well-being of members of the university community by providing opportunities to engage in dance, sport, and fitness activities through service, intramural, and free-plan programs.

College Advisement Center

203 RB
(801) 422-3638

Students obtain help in planning their educational programs through the College of Health and Human Performance Advisement Center and the respective departments.

Health and Human Performance Services

Health and Human Performance Services coordinates free play, intramurals, and event scheduling. Students, faculty members, and staff may use the physical education facilities during scheduled free-play times.

A college computer lab and a learning resource center are available to support student learning.

College of Humanities

2054 JKHB
(801) 422-2775

Dean: Van C. Gessel, Professor, Japanese
Associate Dean: Melvin J. Luthy, Professor, Linguistics
Associate Dean: David B. Paxman, Professor, English
Associate Dean: John R. Rosenberg, Professor, Spanish

What Are the Humanities?

The humanities incorporate the study of the central expressions of human values: language, literature, philosophy, and artistic culture. But the emphasis is always on language, for language is the distinguishing mark of our humanity and the power that enables us to create a cumulative symbolic record of our experience.

A knowledge of the humanities enables students to understand the present and the future from a historical perspective that includes the most profound original works of the men and women who have helped to shape our civilizations. Students also develop skills in critical reading and interpretation, analytical thinking, and writing. These insights and skills provide a foundation for careers in many different professions and for productive and rewarding lives as educated citizens.

Academic Departments

Asian and Near Eastern Languages
English
French and Italian
Germanic and Slavic Languages
Humanities, Classics, and Comparative Literature
Linguistics and English Language
Philosophy
Spanish and Portuguese

Programs and Support Areas

Center for Language Studies
Center for the Study of Christian Values in Literature
College Advisement Center
Collegewide graduate Language Acquisition Program
English Language Center
Humanities Technology and Research Support Center
Language credit by examination
Publications Center
Foreign Language Student Residence
Summer Language Institute
Spanish Resource Center

Programs in International Studies

International Internships
International Cinema
Study Abroad

College Advisement Center

Mary Anne Rich, Supervisor
3078 JKHB
(801) 422-4789

The advisement center assists students with registration; information about majors, General Education, and changing majors; application for graduation and graduation clearance; and questions about policy and procedure. Students are encouraged to take advantage of these advisement center services.

For advisement regarding specific major requirements, substitutions within a major, career options, or graduate programs, students should consult with faculty advisors within the various departments.

Language Credit by Examination

Jerry W. Larson, Professor of Spanish; Director, Humanities Technology and Research Support Center
3060-A JKHB

Any student enrolled at BYU whose native language is English may receive credit by special examination for certain foreign language courses for which he or she has acquired the equivalent skill or knowledge. However, this is possible only if no university credit has been given through AP, CLEP, or transfer of equivalent credit from another university or other institutions. Students whose native language is not English may not receive credit for their native language, but they may receive credit by special examination for courses in English offered through the TESOL program of the Linguistics and English Language Department. They may also receive credit by special examination for a language other than their native language as described above.

Graded examinations for languages taught on the BYU campus are administered by the department concerned. Pass-fail examinations for other languages are administered by the coordinator of the Foreign Language Testing Program in the Humanities Technology and Research Support Center.

Center for Language Studies

Melvin J. Luthy, Director
2054-B JKHB

To extend the exceptional foreign language capabilities of BYU to a large audience, the Center for Language Studies offers a variety of intensive language courses during the summer term (mid-June to mid-August) and regular courses in less commonly taught languages during the academic year. See in-depth information in the Center for Language Studies section of this catalog.

Center for the Study of Christian Values in Literature

Jesse S. Crisler, Professor of English, Director
3127 JKHB

The center holds symposia, conducts various writing contests, and publishes the journal *Literature and Belief.*

English Language Center

Glen W. Probst, Administrative Coordinator, 2113-A JKHB
C. Ray Graham, Academic Coordinator, 2113-B JKHB

The English Language Center is a resident program of intensive English language training.

Foreign Language Student Residence

Jeannie Welch, Coordinator (1102-A JKHB, (801) 422-7797)

Students who desire a more in-depth language study experience and practical application of the language under the direction of faculty and native residents may apply to live in the Foreign Language Student Residence. All activities in the individual apartments in the residence are conducted in the foreign language. Inquiries should be directed to the coordinator or to the appropriate departmental advisor for detailed information concerning opportunities for men and women in French, Russian, Italian, German, Japanese, Spanish, Chinese, Arabic, Korean, and Scandinavian languages.

Humanities Technology and Research Support Center

Jerry W. Larson, Professor of Spanish, Director (3060 JKHB)

The Humanities Technology and Research Support Center provides technological and consulting resources to support research and teaching in the College of Humanities. Available in the center are audio, video, and microcomputer facilities in addition to optical scanning services.

College of Nursing

500 SWKT
(801) 422-5123

Dean: Elaine S. Marshall, Professor, Nursing
Associate Dean: Barbara Mandleco, Associate Professor, Nursing
Associate Dean: Rae Jeanne Memmott, Associate Professor, Nursing
Associate Dean: Mary Williams, Associate Professor, Nursing

College Advisement Center

Linda Stevens, Supervisor
551 SWKT

For information regarding College of Nursing programs and admission application forms, contact the following:

Undergraduate students:
College of Nursing Advisement Center
551 SWKT, (801) 422-4173

Graduate students:
Denise Gibbons Davis, Graduate Secretary
500 SWKT, (801) 422-4142

Study of Nursing at Brigham Young University

The College of Nursing at Brigham Young University, established in 1952, is accredited by the National League for Nursing Accreditation Commission and the Utah State Board of Nursing and has approval from the Commission on Collegiate Nursing Education. The mission of the College of Nursing is to provide students with broadly based knowledge and skills necessary to become nursing professionals and informed citizens.

Baccalaureate graduates are prepared to function in generalist roles in hospital and community settings. They also have excellent preparation for entrance into graduate programs. Graduates of the MS program are prepared for a variety of advanced practice and leadership roles in the health care delivery system.

The faculty of the college are committed to creating a stimulating learning environment based on Christian principles. They maintain a broad range of research and clinical interests.

Student resources include a fully equipped learning resource center with audiovisual and computer learning aids, a research center, and a state-of-the-art clinical simulation laboratory. Clinical practice opportunities exist in a variety of urban and rural hospital, school, home, and community settings along the Wasatch Front. Students may gain extended experiences with specialized national and international health programs.

Scholarships and Awards

Scholarships are available for undergraduate and graduate students. Information about additional sources of funding for study are available in the College of Nursing Advisement Center. Research assistantships and teaching assistantships are also available.

College of Physical and Mathematical Sciences

N-181 ESC
(801) 422-2674

Dean: Earl M. Woolley, Professor, Chemistry and Biochemistry
Associate Dean: G. Rex Bryce, Professor, Statistics
Associate Dean: Dana Thomas Griffen, Professor, Geology

The College of Physical and Mathematical Sciences consists of seven departments:

Chemistry and Biochemistry
Computer Science
Geology
Mathematics
Mathematics Education
Physics and Astronomy
Statistics

Freshmen who are interested in the physical and mathematical sciences but are undecided about a specific major may register in science fundamentals core courses: Math 112; Chem 111 or 105; Phscs 121.

College Advisement Center

Merle T. White, Supervisor
N-179 ESC
(801) 422-6270

The advisement center provides information and help on registration, graduation requirements, policies and procedures, fields of study, changes of major, and many other aspects of the college's academic life.

Degrees Offered

Bachelor of arts or bachelor of science degrees are offered in chemistry, computer science, geology, mathematics, mathematics education, physics, and statistics. No degree is offered in the physical science or science fundamentals areas.

The master of science degree is offered in biochemistry, chemistry, computer science, geology, mathematics, physics, and statistics. The master of arts degree is available in mathematics education. The doctor of philosophy degree is offered in biochemistry, chemistry, computer science, mathematics, physics, and physics/astronomy.

See specific departmental sections of this catalog for baccalaureate degree requirements. Graduate programs are detailed in the 2003–2004 BYU Graduate Catalog.

J. Reuben Clark Law School

348-A JRCB
(801) 422-4274

Dean: H. Reese Hansen
Associate Dean: J. Clifton Fleming
Associate Dean: Constance K. Lundberg
Associate Dean: Kathy D. Pullins
Associate Dean: Kevin J. Worthen
Assistant Dean: Carl Hernandez
Assistant Dean: Mary E. Hoagland

The J. Reuben Clark Law School offers a six-semester course of graduate professional study leading to the juris doctor (JD) degree. Information about legal education, admissions standards, and related matters can be obtained from the J. Reuben Clark Law School Bulletin, which is available through the admissions office of the Law School.

To be admitted to the Law School, an applicant must be a college graduate who has excelled academically and has scored in the upper range of the nationally administered Law School Admission Test. In addition, applicants must meet the general university admission requirements, including the personal standards required of all students.

Apply for admission on forms provided by the Law School or order LSACD electronic law school application software at www.lsac.org, and file before February 1 preceding the fall of expected enrollment in the Law School. Enrollment takes place only in the fall of each year.

For more information regarding prelegal education, consult the section of this catalog entitled Preprofessional Programs (Law).

Marriott School of Management

730 TNRB
(801) 422-4121

Dean: Ned C. Hill, Professor, Finance
Associate Dean: W. Steve Albrecht, Professor, Accounting
Associate Dean: Lee Tom Perry, Professor, Organizational Leadership and Strategy

Academic Departments

School of Accountancy and Information Systems
Department of Business Management
Romney Institute of Public Management
Organizational Leadership and Strategy
Aerospace Studies (Air Force ROTC)
Military Science (Army ROTC)

Management Advisement Center

Eldon Bott, Supervisor
460 TNRB
(801) 422-4285

Advisors are prepared to assist undergraduate students in successfully completing university, college, and major requirements. Students are encouraged to meet frequently with their advisors. The center provides up-to-date records and information, and center personnel are available to help with registration, graduation requirements, fields of study, changes in major, and transfer evaluation and to clarify policies and procedures.

Undergraduate Programs

Three undergraduate degrees are offered by the Marriott School of Management. The first is a bachelor's degree in management, which provides a broad management education. The program is designed to assist students in acquiring knowledge, insight, maturity, competence, and a strong sense of moral and ethical character. An area of emphasis may be taken by students seeking specialization.

The second bachelor's degree is offered by the School of Accountancy and Information Systems to students seeking to combine accounting skills with broad management education (see the School of Accountancy and Information Systems section of this catalog for details). Accounting students interested in acquiring in-depth specialization or seeking careers in public accounting are encouraged to apply to the Master of Accountancy Program.

The third bachelor's degree is also offered by the School of Accountancy and Information Systems to students seeking to combine information systems skills with broad management education (see the School of Accountancy and Information Systems section of this catalog for details). Students interested in acquiring in-depth specialization in information systems are encouraged to apply to the Master of Information Systems Management Program.

Graduation Application for Bachelor's Degree

When a student has completed 86–96 earned hours (usually during the junior year), application for graduation should be initiated at the Marriott School of Management Advisement Center.

Graduate Programs

The Marriott School of Management offers the following graduate degrees:

MAcc Professional Accountancy
MAcc Tax
MBA Business Administration
MISM Information Systems Management
MPA Public Administration

Individual program brochures are available from the Marriott School of Management, 730 TNRB, Brigham Young University, Provo, UT 84602-3113. Also, refer to the BYU 2003–2004 Graduate Catalog.

David O. McKay School of Education

343 MCKB
(801) 422-3694

Dean: Robert S. Patterson, Professor, Educational Leadership and Foundations
Associate Dean: Marie Tuttle, Clinical Assistant Professor, Teacher Education
Associate Dean: K. Richard Young, Professor, Counseling Psychology and Special Education

The five departments in the David O. McKay School of Education are:

Audiology and Speech-Language Pathology
Counseling Psychology and Special Education
Educational Leadership and Foundations
Instructional Psychology and Technology
Teacher Education

The principal purposes of the David O. McKay School of Education are: (1) preparing teachers for public and private schools; (2) providing graduate programs for the preparation of school principals, counselors, school psychologists, curriculum supervisors, speech-language pathologists, clinical audiologists, and master teachers; (3) offering research-based graduate programs; and (4) researching educational processes and issues.

Education Advisement and Certification Office

Linda Parker, Supervisor
120 MCKB
(801) 422-3426

The Education Advisement and Certification Office assists students from the beginning of the freshman year through graduation and teacher certification. Students majoring in elementary education, early childhood education, special education, or audiology and speech-language pathology are advised concerning general education and major requirements, graduation requirements, and teacher licensure procedures.

Secondary education majors in physical science and social science receive their total program advisement from the Education Advisement and Certification Office. Other secondary education majors receive advisement in general education and major requirements from their respective college advisement centers. All majors receive licensure advisement in the Education Advisement and Certification Office.

Students are encouraged to visit their advisement centers on a regular basis.

Field Services Office

Margaret F. Ostlund, Director
120 MCKB
(801) 422-4625

The Field Services Office (FSO) assists students with student teaching and internship placements in local schools and in schools selected as national and international sites for BYU teacher education programs. All students must make application and receive clearance for student teaching and internships by submitting a Student Teaching Application to the Education Advisement and Certification Office. Forms are available on the Field Services Web site: *http://msed.byu.edu/fieldservices.*

Career Placement Office—Education

Lisa Gregory, Supervisor
2400 WSC
(801) 422-6935

The Career Placement Office—Education (CPOE) provides students with information about and applications for many public school positions out of state and in Utah. Students register with the CPOE by establishing an account on eRecruiting *http://byu.erecruiting.com/er/security/login.jsp* and completing a placement file during the last semester of their programs. Registrants gain access to many valuable services, including job search advisement, workshops, and materials on how to prepare resumés and do well in an interview. Interviews with recruiters are scheduled regularly, and job listings are posted at the CPOE and online at *http://alumni.byu.edu/placement/.*

Acceptance into Teacher Education

Acceptance into teacher education programs in the David O. McKay School of Education is based on a student's performance on prescribed criteria as well as grades earned at the university. The David O. McKay School of Education seeks students who attain high educational standards and who evidence aptitude for teaching.

Secondary education students are encouraged to take ScEd 276R in their sophomore year. Elementary and early childhood education students are encouraged to complete their "Exploratory Experiences in Education" (see advisor for details) before the final semester of their sophomore year, after which formal acceptance into professional programs in the David O. McKay School of Education normally occurs.

Withdrawals. Students who withdraw from the university or who otherwise interrupt their education (excepting spring and summer terms) must expect, on returning to the university, to meet the most recent requirements for teacher education programs.

Transfer Students. Students who transfer to the David O. McKay School of Education from a two-year college, another university, or another college within BYU must meet the requirements for acceptance set forth above.

Preparation of Teachers

Early Childhood Teaching. Students who want to teach young children from prekindergarten through grade 3 should register in the Department of Teacher Education. Students receive advisement from the David O. McKay School of Education Advisement and Certification Office. Prior application and acceptance are required to enroll in the professional education course sequence. Students should plan their programs and course schedules with the designated advisors in the Education Advisement and Certification Office. Elementary education majors may elect to fullfill certification requirements for teaching P–K by completing a subject area emphasis in early childhood education. Contact the Education Advisement and Certification Office for further details.

Elementary School Teaching. Education majors should check with their advisor in the Education Advisement and Certification Office for modifications to the program. Both an accepted application and successful completion of the "Exploratory Experiences in Education" packet or equivalent experience are required for admission to the teacher education program. These

must be completed before the final semester of the sophomore year so that alternate educational plans can be made, without prolonging the time to graduation, if the student is denied admittance into the elementary education program. Applicants must demonstrate and maintain established standards for personal conduct and interpersonal skills as outlined in the program.

Students interested in elementary school teaching register in the David O. McKay School of Education. Prior application and acceptance are required to take the professional sequence. Courses and prerequisites are listed in the Teacher Education section of this catalog. Students majoring in elementary education should plan their programs with the designated advisors in the Education Advisement and Certification Office.

Secondary School Teaching. Students who plan a career in secondary school teaching should register in the department of their academic major, except for physical science or social science majors, who register in the David O. McKay School of Education. There is no major in secondary education per se, but students must complete professional education requirements as well as an academic teaching major or composite major. Some areas require a teaching minor also. Students should begin their professional preparation (ScEd 276R) during the sophomore year to facilitate scheduling the balance of the licensure program. For course listings and prerequisites, see the Department of Teacher Education section of this catalog. Students should plan their program with the designated advisors in the Education Advisement and Certification Office.

Special Education Teaching. Students who plan to complete a major in special education teaching should contact the Department of Counseling Psychology and Special Education in 340 MCKB for an application to the program. Students receive advisement from the David O. McKay School of Education Advisement and Certification Office. In addition to core courses, students select an area of emphasis: mild/moderate or severe. The program includes multiple practica in the schools and spring/summer enrollment is required.

Audiology and Speech-Language Pathology. This academic department prepares students to be communication specialists in schools, hospitals, rehabilitation centers, and other agencies and in private practice. Certification and licensure in Utah and in most other states, as well as by the American Speech-Language-Hearing Association, require a master's degree. Students interested in audiology or speech-language pathology should plan their program with the designated advisor in the Education Advisement and Certification Office.

Student Teaching. The culminating experience for students in teacher education is a student teaching assignment in a public school classroom under the supervision of cooperating school teachers and university supervisors. Students must plan their programs carefully to meet requirements for student teaching.

Internships. Internship appointments are available through programs offered by the David O. McKay School of Education and may substitute for some student teaching. Internship appointments in the public schools are for a full year and carry a modest stipend. Interested students should contact the Field Services Office.

Application for Licensure

The licensure of teachers is a function of the Utah State Office of Education (USOE). Requirements for Utah licensure are available in the Education Advisement and Certification Office. There are, from time to time, modifications in licensure requirements. Although such modifications are not retroactive, they may still affect the uncompleted portion of a student's program.

Students who apply for Utah licensure must have the recommendation of the dean of the David O. McKay School of Education. Students are encouraged to plan their programs with the assistance of advisors in the Education Advisement and Certification Office so that they will be assured of meeting requirements for licensure.

Certification/Licensure in Other States. Under reciprocity agreements, Utah licensure is accepted in those states where such agreements are in effect. Specific information is available in the Education Advisement and Certification Office. Students who plan to certify/license in another state should contact that state for requirements beyond those in Utah as early in their programs as possible.

Graduate Studies

B-356 ASB
(801) 422-4091

Dean: Bonnie Brinton, Professor, Audiology and Speech-Language Pathology
Assistant to the Dean: Kathy Blackwell

For information about master's and doctoral degree programs, students should consult the 2003–2004 BYU Graduate Catalog, which may be accessed online at www.byu.edu/gradstudies, through BYU Mail Services (296 UPB), or, for those who visit the campus, the BYU Bookstore. The catalog is available in both a hard-copy and a CD version.

Application information is available online at www.byu.edu/gradstudies, through the Office of Graduate Studies, and through individual departments. For information regarding admission to the J. Reuben Clark Law School or the Marriott School of Management, refer to those sections of this catalog.

School of Accountancy and Information Systems (SOAIS)

Boyd C. Randall, Director
540 TNRB, (801) 422-2314

Marshall B. Romney, Associate Director
512 TNRB, (801) 422-5704

Monte R. Swain, Associate Director
560 TNRB, (801) 422-3174

Marriott School of Management Advisement Center
460 TNRB, (801) 422-4285

Admission to Degree Program

The degree programs in the school carry special enrollment limitations. Please see the Marriott School of Management Advisement Center for specific details.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS	Accounting
BS	Information Systems

For help or information on the undergraduate programs, please see the Marriott School of Management Advisement Center.

For information on management degrees, see Management section of this catalog.

Graduate Programs and Degrees

MAcc	Professional Accountancy
MAcc	Tax
MISM	Information Systems Management

For more information see the current Marriott School of Management School of Accountancy and Information Systems Web site at *http://marriottschool.byu.edu* and the BYU 2003–2004 Graduate Catalog.

General Information

Program Acceptance Requirements

Acceptance into the SOAIS is limited to fall semester only, with one application deadline: last working day of June. Application must be submitted online at the Marriott School Web site, and further information is available on the Web site or at the Marriott School of Management Advisement Center. Acceptance is competitive, with a maximum of 260 students accepted each year into the accounting program and 150 each year into the information systems program. Not all students who meet minimum application requirements are guaranteed entry.

Accounting

The Discipline

Accounting has been called the language of business. A good understanding of accounting principles and practices can serve as the basis for a career in any business field. Accountants provide critical input and guidance in profit-seeking organizations, service and charitable organizations, educational institutions, government, public accounting firms, and, indeed, in any organization that exists today.

Career Opportunities

Accounting graduates work in public accounting firms, consulting, private industry, government agencies, and retailing.

Application Requirements

1. Have concurrent or prior acceptance to the Marriott School of Management.
2. Earn B grades (minimum) in Acc 200 and 210; or 201 and 202; and have a 3.0 minimum average GPA in the following four classes: Econ 110, Stat 221, MCom 320, ISys 201.

Note 1: If a student must leave the program for a mission, internship, or other reason, a leave of absence request form is required. A prompt return to the program is required. Students who have interrupted their SOAIS education for more than two years or without prior approval will be required to meet the requirements of the program in effect at reacceptance.

Note 2: Upper-division accounting class credits earned prior to five years before graduation may not be used to meet specific graduation requirements for the BS degree. This policy does not affect the recognition of those hours earned to satisfy total university credit.

BS Accounting, Concurrent with MAcc

The first year of the SOAIS program must be completed with a minimum 3.0 GPA to be eligible to apply for continuation into the Master of Accountancy Program. The undergraduate fourth year (Integrated Management Core plus BusM 385, 499, and MCom 321) is replaced by the Marriott School of Management graduate core plus MBA 581, PMgt 582, and MCom 642. Students planning to pursue a master of accountancy degree should not take the above-noted classes.

BS Accounting (75 hours*)

This is a limited-enrollment program requiring departmental acceptance. Please see the college advisement center for information regarding requirements for application to this major.

Major Requirements

1. No more than 12 semester hours of upper-division transfer credit will be accepted toward the major and only 6 hours beyond the Pre-Accounting Core.
2. Students are encouraged to enroll in courses outside the Marriott School of Management. Only 56 upper-division Marriott School hours count toward graduation.
3. Pass a computer proficiency requirement for spreadsheet and presentation software skills. Students may demonstrate spreadsheet and presentation skills either by earning a Pass grade in ISys 100 and MCom 100, a Pass grade on corresponding challenge exams, or a passing grade in equivalent transfer courses, or by presenting Microsoft Office User Specialist (MOUS) certificates validating core-level competency in MS Excel and PowerPoint.
4. Complete the following Pre-Management Core courses:
   Math 112 or 119 or equivalent.
   Econ 110.
   Stat 221.
   Acc 200.

   Note: The Pre-Management Core must be completed with at least a 3.0 GPA (no grade lower than a C–), with no more than one repeat for each class, for Marriott School of Management application. Econ 110, Stat 221, MCom 320, and ISys 201 must have a 3.0 minimum average for SOAIS application.
5. Complete the following Pre-Accounting Core courses:
   Acc 210.
   ISys 201.
   MCom 320.
6. Be accepted into the program.
7. Complete the following Management Core 2 courses:
   Acc 241.
   MCom 321.
   PMgt 385 (or 582).
   BusM 320, 321.
8. Complete the following accounting major courses:
   Acc 401, 402, 403, 404, 405, 406.
9. Complete the following Integrated Management Core courses:
   OrgB 321.
   BusM 322, 341, 361, 401.
   RelC 492 (2 hours required).

   Note: If completing the MAcc, these courses will be replaced by the MSM Core.
10. Complete the following after Acc 401, 402, 403, 404, 405, 406:
    BusM 499.
    ManEc 453.

*Hours include courses that may fulfill GE or university requirements.

Accounting (Acc)

Undergraduate Courses

Note: Students enrolled in nonbusiness programs requiring or recommending Acc 201 or 202 should enroll in 200.

200. Principles of Accounting. (3:3:0) Independent Study also.
Financial and managerial accounting principles. Basic accounting statements, processes, and management applications. Open to all students.

201. Principles of Financial Accounting. (3:3:1) Independent Study only.
First course in concepts and methods underlying financial statements.

202. Principles of Managerial Accounting. (3:3:1) For transfer students only. Prerequisite: Acc 201.
Second course in the elementary series covering managerial problems and control of business operations.

210. Principles of Accounting 2. (3:3:0) For Marriott School of Management students only. Prerequisite: Acc 200.
Additional issues in financial and managerial accounting. Review of issues related to balance sheet accounts, performance evaluation and capital budgeting.

241. Business Law in the Environment. (3:3:0) F, W, Sp, Su Prerequisite: Marriott School of Management major status.
Introduction to legal principles and institutions affecting business.

Note: SOAIS 300-level classes are available to Marriott School of Management and certain other selected majors.

320. Introductory Income Tax. (3:3:0) For nonaccounting majors. Prerequisite: Acc 200.
Measurement and concepts of taxable income.

343. Business Law. (3:3:0) Prerequisite: Acc 241 or equivalent.
The law relating to negotiable instruments, secured transactions, real property, wills and trusts, and bankruptcy.

Note: All 400-level classes (except 440) are limited to accounting SOAIS majors.

401. Business and Accounting Information Systems. (4:4:0) Prerequisite: admission to SOAIS and Marriott School.
Inputs, processing, outputs, and files of several transaction-processing subsystems. Foundation for understanding internal control. Variety of tools used to design, create, or document accounting information systems (AIS) to achieve organizational objectives.

402. Cost and Managerial Accounting. (4:4:0) Prerequisite: admission to SOAIS and Marriott School.

Cost and managerial accounting topics, including production processes, product costing, cost behavior analysis with regression, differential costing, capital budgeting, throughput accounting, performance measurement, and budgeting.

403. Intermediate Financial Accounting 1. (4:4:0) Prerequisite: admission to SOAIS and Marriott School.

Financial reporting issues for balance sheet, income statement, and cash-flow statement. Revenue recognition; accounting for long-term assets, investment securities, and derivative instruments; consolidation.

404. Financial Accounting 2. (4:4:0) Prerequisite: admission to SOAIS and Marriott School; Acc 401, 402, 403.

Accounting for receivables and inventory. Major reporting issues associated with liabilities and stockholders' equity. Introduction to computing basic and diluted earnings per share.

405. Fundamentals of Taxation. (4:4:0) Prerequisite: admission to SOAIS and Marriott School; Acc 401, 402, 403.

Tax principles applicable to business entities and individuals; tax compliance issues; tax planning as part of overall strategic planning process for businesses and individuals.

406. Financial Statement Auditing. (4:4:0) Prerequisite: admission to SOAIS and Marriott School; Acc 401, 402, 403.

Introduction to framework providing financial statement assurance; integrating accounting and business knowledge with concepts from other disciplines such as statistics and law; framework applied to major business cycles, providing specific knowledge in financial statement auditing.

440. Corporate Financial Reporting. (3:3:0) Prerequisite: Acc 200, 210, BusM 301.

Accounting principles of corporate financial reporting. Judgments managers make preparing financial statement information. How complexities, alternatives, and impacts affect completed financial statements.

453. Money, the Financial System, and the Economy. (3:3:0) Prerequisite: Acc 401, 402, 403, 404, 405, 406.

Applications of industry analysis and microeconomic principles in the macroeconomic environment that influences individuals and financial intermediaries that transact in money and credit markets.

Graduate Courses

For 500- and 600-level courses, see the current Marriott School of Management School of Accountancy and Information Systems Web site at *http://marriottschool.byu.edu* and the BYU 2003–2004 Graduate Catalog.

Information Systems

The Discipline

Information systems involves two broad areas: (1) an organization's information systems function—acquisition, deployment, and management of information technology resources and services; and (2) system development—development and evolution of technology infrastructures and systems for use in organization processes. Information systems professionals provide services ranging from the managerial to the highly technical. Information systems and technology skills are critical to the success of virtually all modern organizations, including small business, corporations, government, and educational institutions.

Career Opportunities

Information systems graduates work in large and small organizations of all types, helping maintain existing technology infrastructure and specifying technology solutions to business needs. Often they serve as the bridge between an organization's technical personnel and its business side. Challenging career opportunities are found in consulting firms, large corporations, government agencies, and smaller entrepreneurial concerns.

Application Requirements

1. Have concurrent or prior acceptance to the Marriott School of Management.
2. Earn a B grade (minimum) in ISys 201 and 202 and have a 3.0 minimum average GPA in Econ 110, Stat 221, Math 119, and Acc 200.

Note 1: If a student must leave the program for a mission, internship, or other reason, a leave of absence request form is required. A prompt return to the program is required. Students who have interrupted their SOAIS education for more than two years or without prior approval will be required to meet the requirements of the program in effect at reacceptance.

Note 2: Upper-division information systems class credits earned prior to five years before graduation may not be used to meet specific graduation requirements for the BS degree. This policy does not affect the recognition of those hours earned to satisfy total university credit.

BS Information Systems, Concurrent with MISM

The first year of the SOAIS program must be completed with a minimum 3.0 GPA to be eligible to apply for continuation into the Master of Information Systems Program. The undergraduate fourth year (Integrated Management Core plus ISys 490 and 499) is replaced by the Marriott School of Management graduate core plus MBA 581 and Acc 657. Students planning to pursue a master of information systems degree should not take the above-noted courses. Students planning to pursue the MISM degree should take PMgt 582 in place of PMgt 385.

BS Information Systems (75 hours*)

This is a limited-enrollment program requiring departmental acceptance. Please see the college advisement center for information regarding requirements for application to this major.

Major Requirements

1. No more than 12 semester hours of upper-division transfer credit will be accepted toward the major and only 6 hours beyond the Pre-Systems Core.
2. Students are encouraged to enroll in courses outside the Marriott School of Management. Only 50 upper-division Marriott School hours count toward graduation.
3. Pass a computer proficiency requirement for spreadsheet and presentation software skills. Students may demonstrate spreadsheet and presentation skills either by earning a Pass grade in ISys 100 and MCom 100, a Pass grade on corresponding challenge exams, or a passing grade in equivalent transfer courses, or by presenting Microsoft Office User Specialist (MOUS) certificates validating core-level competency in MS Excel and PowerPoint.
4. Complete the following Pre-Management Core courses:
   Math 112 or 119 or equivalent.
   Econ 110.
   Stat 221.
   Acc 200.

Note: The Pre-Management Core must be completed with at least a 3.0 GPA (no grade lower than a C–), with no more than one repeat for each class, for Marriott School of Management application. Econ 110, Stat 221, Math 119, Acc 200, and ISys 201 and 202 must have a 3.0 minimum average for SOAIS application.

5. Complete the following Pre–Information Systems Core courses:
   ISys 201, 202.
6. Be accepted into the Information Systems Program.
7. Complete the following Management Core 1 and 2 courses:
   Acc 210, 241.
   BusM 320, 321, 384.
   MCom 320, 321.
   PMgt 385 (PMgt 582 if planning on MISM).
   And complete one course from the following:
   ManEc 300, 301, 358, 376, 453.
8. Complete the following Integrated Management Core courses:
   BusM 301, 322, 341, 361.
   OrgB 321.
   RelC 492 (2 hours required).

   Note: If completing the MISM, these courses will be replaced by the MSM core.
9. Complete the following Information Systems Core 1 courses (taught fall only):
   ISys 401, 402, 403.
10. Complete the following Information Systems Core 2 courses (taught winter only):
    ISys 411, 412, 413.
11. Complete the following capstone courses:
    ISys 490, 499.

*Hours include courses that may fulfill GE or university requirements.

Information Systems (ISys)

Undergraduate Courses

100. Computer Spreadsheets Skills. (0.5:0:1)
Basic computer skills, focusing on spreadsheet and database programs. No technical background necessary. Fee.

199R. Academic Internship: Information Systems. (1–3:Arr.:Arr. ea.) Prerequisite: selection of information systems emphasis in Marriott School of Management.
Approved on-the-job experience. Applying classroom theory and technology to actual problems; exploring career opportunities; learning role of information systems in business environment. P/F grade.

201. Introduction to Management Information Systems. (3:3:1) Prerequisite: ISys 100, MCom 100, and declared business major.
Using technology to solve business problems. Hands-on use of spreadsheet, database, and Internet software in a business context.

202. Introduction to Computer Programming. (3:3:0) Prerequisite: ISys 201 or concurrent enrollment (with instructor's consent); information systems major status.
Object-oriented program design and development. Principles of algorithm formulation and implementation.

401. Systems Analysis. (3:3:0) Prerequisite: admission to information systems major; concurrent enrollment in same section of ISys 402 and 403.
Early phases of systems development life cycle, including project management, planning, investigation, requirements definition, systems specifications, alternative selection. Tools and techniques of object-oriented analysis.

402. Database Systems. (3:3:0) Prerequisite: admission to information systems major; concurrent enrollment in same section of ISys 401 and 403.
Concepts and techniques of database system development, focusing on object-oriented modeling and its implementation methods.

403. Principles of Business Programming. (3:3:0) Prerequisite: admission to information systems major; concurrent enrollment in same section of ISys 401 and 402.
Programming business systems. Algorithms, data structures, programming patterns, and interfaces.

411. Systems Design and Implementation. (3:3:0) Prerequisite: ISys 401, 402, 403; concurrent enrollment in same section of ISys 412 and 413.
Later phases of systems development life cycle. System architecture, user interfaces, system interfaces, and application design. Testing and integration. Object-oriented development.

412. Data Communications. (3:3:0) Prerequisite: ISys 401, 402, 403; concurrent enrollment in same section of ISys 411 and 413.
Principles of data communications, local- and wide-area networks, hardware, software, media, standards, management, and business applications.

413. Enterprise Application Development. (3:3:0) Prerequisite: ISys 401, 402, 403; concurrent enrollment in same section of ISys 411 and 412.
Client- and server-side programming. Internet and Web-based applications. Enterprise systems and architectures.

440. Principles of Business Programming. (3:3:0) Prerequisite: ISys 201.
Business-oriented introduction to computer programming. Principles of structured programming and design.

443. Information Systems Analysis. (3:3:0) Prerequisite: SOAIS Core or ISys 201.
Examination of Systems Development Life Cycle (SDLC) emphasizing tools and methods of analysis and general design phases, including investigation, study, definition and systems specification/selection.

490. Information Systems and Management Consulting. (2:2:0) Prerequisite: ISys 411, 412, 413; concurrent enrollment in ISys 499.
Applying concepts, principles, and methods of management consulting in the context of mentored information systems–related project work.

499. Strategic Management of Information Systems. (3:3:0) Prerequisite: ISys 411, 412, 413; concurrent enrollment in ISys 490.
Achieving strategic information systems alignment to create sustainable competitive advantage. Concepts and methods critical for information systems management, such as outsourcing, security, controls, and organizational transformation.

500-Level Graduate Courses (available to advanced undergraduates)

510. Business Processes and Controls. (3:3:0 W Prerequisite: admission to a Marriott School graduate program; Acc 210 or equivalent; ISys 201 or equivalent.
Introduction to business processes; information flows; corporate governance; IT governance.

511. Decision-Making Contexts. (3:3:0) W Prerequisite: ISys 510 or concurrent enrollment.
Case studies of information gathering, aggregation, and use. Recognizing information requirements of decision makers.

520. Business Programming. (3:3:0) Prerequisite: admission to an MISM graduate program.
Accelerated business-operated introduction to computer programming for graduate students. Principles of structured programming and component-based visual programming.

530. Internet Programming 1. (3:3:0) Prerequisite: Web browsing skills; basic understanding of files and operating systems.
Internet architecture, Web browsing, graphic types, Web servers, graphical interfaces, style sheets, programming scripts, and site promotion.

540. Advanced Business Programming. (3:3:0) Prerequisite: ISys 440 or equivalent programming experience.
Business-oriented introduction to object-oriented (OO) programming. Classes, inheritance, polymorphism, report generation, and file processing using current OO languages.

546. Network Database Computing. (3:3:0) Prerequisite: ISys 440, 445; or equivalents.
Client and server-side programming on local area network. Internet platforms using advanced languages.

548. Data Communications. (3:3:0) W Prerequisite: MSM core; ISys 201 or equivalent.
Principles of data communications, local- and wide-area networks, hardware, software, media, standards, management, and business applications.

550. Database Programming. (3:3:0) W Prerequisite: ISys 443 or equivalent.
Workshop on the SQL relational database language and its programming extensions.

560. Security and Control of Information Systems. (3:3:0) F Prerequisite: ISys 440 and 548 or equivalents; or ISys 403 and 412 or equivalents.
Security and control for e-business, emphasizing methods of ensuring confidentiality, authentication, message integrity, non-repudiation, access control, digital signatures, and electronic payment mechanisms.

580. Information Systems Tools and Applications. (3:3:0) Prerequisite: ISys 201 or equivalent.
Applying information systems tools to business situations. Tools covered are updated with changes in the industry.

590R. Seminar in Information Systems. (1–3:Arr.:Arr. ea.)
Special topics by announcement.

599R. Academic Internship: Information Systems. (1–3:Arr.:Arr. ea.)
Approved on-the-job experience. Applying classroom theory and technology to actual problems; exploring career opportunities; learning role of information systems in business environment.

Graduate Courses

For 600-level courses, see the current Marriott School of Management School of Accountancy and Information Systems Web site at *http://marriottschool.byu.edu* and the BYU 2003–2004 Graduate Catalog.

School of Accountancy and Information Systems Faculty

Professors
Albrecht, W. Steve (1977) BS, Brigham Young U., 1971; MBA, PhD, U. of Wisconsin, 1973, 1975.
Cherrington, J. Owen (1978) BS, Brigham Young U., 1968; MBA, PhD, U. of Minnesota, Minneapolis, 1971, 1972.
Gardner, Robert L. (1978) BA, Brigham Young U., 1969; MBA, BS, U. of Utah, 1975, 1976; PhD, U. of Texas, Austin, 1979.
Hansen, James V. (1982) BS, MS, Brigham Young U., 1963, 1966; PhD, U. of Washington, 1973.
McKell, Lynn J. (1974) BS, Brigham Young U., 1968; MSEE, MS, MS, PhD, Purdue U., 1970, 1972, 1973, 1973.
Radebaugh, Lee H. (1980) BS, Brigham Young U., 1968; MBA, DBA, Indiana U., Bloomington, 1973.
Randall, Boyd C. (1974) BS, JD, MBA, U. of Utah, 1965, 1967, 1968; PhD, U. of Minnesota, 1972.
Romney, Marshall B. (1977) BS, MAcc, Brigham Young U., 1971, 1972; PhD, U. of Texas, Austin, 1977.
Skousen, K. Fred (1970) BS, Brigham Young U., 1965; MAS., PhD, U. of Illinois, 1966, 1968; CPA, 1968.
Stewart, Dave Nelson (1980) BA, MAcc, Brigham Young U., 1977, 1977; PhD, U. of Florida, 1980.
Stice, Earl K. (1998) BS, MAcc, Brigham Young U., 1981, 1982; MS, PhD, Cornell U., 1986, 1988.
Stice, James D. (1988) BS, MAcc, Brigham Young U., 1984, 1984; PhD, U. of Washington, 1988.
Stocks, Kevin D. (1983) BS, MAcc, Brigham Young U., 1978, 1978; PhD, Oklahoma State U., 1981; CPA, 1980.

Associate Professors
Cottrell, David M. (1992) BS, MAcc, MHA, Brigham Young U., 1984, 1984, 1985; PhD, Ohio State U., 1992.
Dalebout, Richard S. (1975) BA, Brigham Young U., 1968; JD, U. of Utah, 1971.
Glover, Steven M. (1994) BA, PhD, U. of Washington, 1987, 1994.
Hansen, Gary W. (1983) BS, MS, Brigham Young U., 1967, 1968; PhD, Indiana U., 1974.
Liddle, Stephen W. (1995) BS, PhD, Brigham Young U., 1989, 1995.
Meservy, Rayman D. (1989) BS, MAcc, Brigham Young U., 1977, 1977; PhD, U. of Minnesota, 1985.
Prawitt, Douglas F. (1993) BS, MAcc, Brigham Young U., 1988, 1988; PhD, U. of Arizona, 1993.
Spilker, Brian C. (1993) BS, MAcc, Brigham Young U., 1987, 1987; PhD, U. of Texas, Austin, 1993.
Swain, Monte R. (1991) BS, MAcc, Brigham Young U., 1987, 1987; PhD, Michigan State U., 1991.
Worsham, Ronald G. (1994) BS, MAcc, Brigham Young U., 1985, 1985; PhD, U. of Florida, 1994.
Zimbelman, Mark F. (1999) BS, Brigham Young U., 1984; PhD, U. of Arizona, 1996.

Assistant Professors
Albrecht, Conan (2000) BS, MAcc, Brigham Young U., 1997, 1997; PhD, U. of Arizona, 2000.
Anderson, Bonnie B. (2001) BS, MAcc, Brigham Young U., 1995, 1995; PhD, Carnegie-Mellon U., 2001.
Barrick, John A. (2001) BS, MAcc Brigham Young U., 1991, 1991; PhD, U. of Nebraska, Lincoln, 1998.
Black, Ervin L. (2000) BA, MBA, Brigham Young U., 1981, 1984; PhD, U. of Washington, 1995.
Burton, F. Greg (2001) BA, MAcc, Utah State U., 1984, 1987; PhD, U. of South Carolina, 1994.
Christensen, Ted E. (2000) BS, San Jose State U., 1989; MS, Brigham Young U., 1991; PhD, U. of Georgia, 1995.
Dean, Douglas (1999) BS, U. of Utah, 1987; MAcc, Brigham Young U., 1989; PhD, U. of Arizona, 1995.
Heninger, William G. (2001) BS, MAcc, Brigham Young U., 1989, 1989; PhD, U. of Georgia, 1997.
Jackson, Robert B. (1988) BS, MS, MBA, Brigham Young U., 1968, 1970, 1972.
Johnson, Peter M. (2002) BS, MS, Southern Utah U., 1991, 1992.
Leikam, Shannon L. (2001) BS, Western Oregon State Coll., 1989; MBA, Oregon State U., 1995; PhD, Oklahoma State U., 2000.
Lowry, Paul B. (2002) BS, MBA, Brigham Young U., 1991, 1997; PhD, U. of Arizona, 2002.
Paik, Gyung H. (2000) BA, Seoul National U., Korea, 1986; MA, Brigham Young U., 1988; MBA, U. of Utah, 1995; PhD, U. of Illinois, 2000.
Peterson, Fredric G. (1973) BA, MA, PhD, U. of Utah, 1964, 1966, 1973.
Summers, Scott (1999) BS, MAcc, Brigham Young U., 1990; PhD, Texas A&M U., 1995.
Wilks, Jeff (2000) BS, Brigham Young U., 1995; MS, PhD, Cornell U., 1999, 2000.

Teaching Professors
Livingstone, Donald H. (1995) BS, Brigham Young U., 1966; CPA, 1970.
Nemrow, Norman R. (1993) BS, MAcc, Brigham Young U., 1978, 1979; CPA, 1981.

Associate Teaching Professor
Richards, John E. (2002) BA, Brigham Young U., 1995.

Assistant Teaching Professor
Lindstrom, Craig J. (2002) BS, MS, Utah State U., 2001.

Emeriti
Boyer, Glen L. (1967) BS, Utah State U., 1963; MS, PhD, U. of North Dakota, 1966, 1972.
Cameron, James B. (1969) BS, U. of Utah, 1956; MBA, U. of California, Los Angeles, 1958; CPA, 1960; PhD, Montana State U., 1967.
Carlson, Gary (1986) BS, MS, PhD, U. of California, Los Angeles, 1956, 1958, 1962.
De Lassen, Jan (1981) BS, Texas A&M U., 1959.
Garrison, Ray H. (1966) BS, MS, Brigham Young U., 1960, 1961; CPA, 1962; DBA, Indiana U., Bloomington, 1966.
Hardy, John W. (1969) BS, Brigham Young U., 1964; MBA, Indiana U., 1966; PhD, U. of Texas, Austin, 1972; CPA.
Hubbard, Ernest Dee (1959) BS, Utah State U., 1952; MBA, U. of Utah, 1959; PhD, U. of Washington, 1967.
McAllister, LeRay L. (1963) BA, Brigham Young U., 1957; MS, DBA, Arizona State U., 1960, 1971; CPA, 1962.
Palmer, Glen O. (1964) BS, MAcc, Brigham Young U., 1961, 1963; CPA, 1963.
Skousen, Karl M. (1958) BS, MS, Brigham Young U., 1944, 1957; CPA, 1957; PhD, Michigan State U., 1962.
Smith, Harold T. (1963) BA, MA, Colorado State Coll., 1958, 1959; EdD, Brigham Young U., 1967.
Smith, Jay M. (1971) BS, MS, Brigham Young U., 1953, 1960; PhD, Stanford U., 1965; CPA, 1958.
Smith, Robert J. (1949) BS, Brigham Young U., 1948; MBA, Northwestern U., 1949; CPA, Illinois, 1949; CPA, Utah, 1950; DBA, Indiana U., 1957.
Sonderegger, Emory O. (1960) BS, MS, Brigham Young U., 1956, 1957; CPA, 1963.
Streuling, G. Fred (1976) BA, MAcc, Brigham Young U., 1963, 1964; PhD, U. of Iowa, 1971; CPA, Utah, 1965; CPA, California, 1966.
Taylor, Dale H. (1963) BA, MA, Brigham Young U., 1951, 1953; CPA, 1955; PhD, Northwestern U., 1963.
White, J. Morgan (1967) BS, Brigham Young U., 1951; CPA, 1953; MS, Brigham Young U., 1958.
Woodfield, Leon W. (1960) BS, MBA, U. of Utah, 1956, 1957; CPA, CPA, 1959, 1960; DBA, Michigan State U., 1965.

Aerospace Studies (Air Force ROTC)

Colonel Lawrence S. Kingsley, Chair
380 ROTC, (801) 422-2671

Admission to Program

Students must be accepted by the department into the program.

The Discipline

The Air Force Reserve Officer Training Corps (AFROTC) is an educational program designed to provide students the opportunity to become Air Force officers while completing requirements for an undergraduate or graduate degree. Four-year, three-year, or two-year programs are available for both men and women.

Career Opportunities

Officer in the United States Air Force.

General Information

Textbooks, Uniforms, and Allowance. All textbooks, uniforms, and uniform accessories are furnished by the Air Force, in addition to the tax-free allowance of $250 to $400 per month furnished to those in the Professional Officer Course (POC) program. During the last two years of the program all students who are not receiving an Air Force ROTC Scholarship are eligible for Professional Officer Course Incentive (POCI). POCI will pay up to $3,000 per year for tuition and $450 per year for books, provided the student maintains a minimum 2.0 term GPA.

Air Force ROTC Scholarship Program. Full tuition assistance is available to students in the two-year, three-year, or four-year program based on merit. By law, scholarship recipients must be under age thirty-one as of December 31 of the calendar year during which commissioning is scheduled. The scholarship includes tuition, fees, textbook allowance, and $250 per month for freshmen, $300 per month for sophomores, $350 per month for juniors, and $400 per month for seniors. Contact the department for application procedures.

Field Training. All cadets wishing to enter the Professional Office Corps (last two years) must attend a field training camp during the summer prior to their junior year. This training gives an increased understanding of the Air Force mission and operation. Students receive practical experience in leadership and management while residing on an Air Force base. At field training students receive career orientation, junior officer training, aircraft and aircrew indoctrination, survival skills, physical training, and weapons experience and learn about the function of an Air Force base. Airborne training (parachute jumping instruction) is available as an extracurricular activity to selected volunteer cadets.

Medical care, housing, food, and uniforms, as well as transportation to and from the training base, are provided. Approximately $500 in pay is received for four-week training and $625 for six-week training.

Extracurricular Activities. Each Air Force ROTC student will be able to participate in a variety of extracurricular activities, including the *Arnold Air Society*, the *Color Guard*, and the *Honor Guard*.

LDS Missions. Students who desire to serve a Church mission should do so between their freshman and sophomore years. This will facilitate entrance into the advanced course. Scholarship students may have their scholarship held while they fulfill a mission as long as they do so before entering the advanced program.

Period of Nonattendance. Four-year program students in Air Force ROTC who are in a five-year university program are allowed a year of nonattendance after their senior AFROTC courses. Out-of-phase students and those who will be student teaching should consult with the department chair.

Discipline. Disciplinary training in the cadet corps is formulated and administered by the student officers. Air Force ROTC students are civilians and are not subject to military law.

Veterans. A veteran seeking a commission through Air Force ROTC may have part or all of the freshman and sophomore program waived. Allowances are paid in addition to G.I. Bill benefits.

Wellness Requirements for Graduation. Students successfully completing eight semesters of AFROTC leadership laboratory satisfy wellness requirements as described in the graduation section of this catalog. Students successfully completing four semesters of AFROTC leadership laboratory satisfy one hour of the physical activity requirement only.

Program Requirements

Four-Year Program

The more popular and preferred program is the traditional Four-Year Program. Interested freshmen register for aerospace studies in the fall term, enrolling in aerospace studies courses in the same manner as for other college courses. There is *no military obligation* for the first two years of Air Force ROTC unless on an Air Force ROTC scholarship. During this time students learn more about the Air Force and the historical development of air power. After completing the first two years, known as the General Military Course (GMC), students may *compete* for entry into the last two years, the Professional Officer Course (POC). If accepted, students will attend a four-week summer field training encampment between their sophomore and junior years before entering the POC. Cadets in the POC study leadership, management, and national defense policy while receiving a nontaxable subsistence allowance of $350 for juniors and $400 for seniors each month.

Three-Year Program

Students entering the program as sophmores can "dual enroll" in both the Aeros 100 and 200 cluster simultaneously. It is necessary to sign up for both labs if both lectures are taken. If accepted, students will attend a four-week field training the next summer.

Two-Year Program

The Air Force ROTC Two-Year Program is primarily available to junior college transfers, veterans, and those who did not take the first two years of Air Force ROTC. To be eligible, students must have at least two academic years remaining either at the undergraduate or graduate level or a combination of the two. If accepted, students will attend a six-week summer field training encampment. Two-year students normally apply early in their sophomore year, attend a five-week field training the next summer, and enter the program at the beginning of their junior year.

Qualifications

1. Be a United States citizen.
2. Be a full-time student.
3. Be eighteen years of age, or seventeen years of age with parent's or legal guardian's consent.
4. Be physically qualified.
5. Be of good moral character.
6. Be in good academic standing.
7. Successfully pass the Air Force Officer Qualifying Test.
8. Have at least two academic years remaining.
9. Be interviewed and selected by a board of Air Force officers.
10. Complete a five-week field training course if a two-year cadet, a four-week course if a four-year cadet.
11. Complete all commissioning requirements as follows:
    a. Pilot or navigator candidate: Complete before age twenty-nine so as to enter undergraduate pilot/navigator training before age thirty.
    b. Scholarship and POCI recipient: Complete before age thirty-one in eligible year of commissioning.
    c. Nonscholarship recipient: Complete before age thirty.

Required Courses

1. General Military Courses: complete the following: Aeros 100, 101, 110, 111, 200, 201, 210, 211.
2. Professional Officer Courses: complete the following: Aeros 300, 301, 310, 311, 400R, 401R, 410, 411.

Note: Two-year students should complete only the 300- and 400-level courses.

Minor Aerospace Studies (14 hours)

Students desiring aerospace studies as a minor must complete the 14 hours of POC course work and the Air Force ROTC requirements, as well as qualify for a commission in the United States Air Force.

Aerospace Studies (Aeros)

Undergraduate Courses

100, 101. Leadership Laboratory—Freshmen. (0.5:0:2 ea.)
Basic fundamentals of military leadership—drill, courtesy, planning, and organizing at various levels of responsibility.

110. The Air Force Today. (1:2:0) Prerequisite: concurrent enrollment in Aeros 100.
Development, organization, and core values of the U.S. Air Force, emphasizing the foundations of officership.

111. Aerospace Defense, General Purpose, and Support Forces. (1:2:0) Prerequisite: concurrent enrollment in Aeros 101.
U.S. Air Force Major Command structure and the origins of the Air Force.

200, 201. Leadership Laboratory—Sophomores. (0.5:0:2 ea.)
As listed for Aeros 100/101. Increased emphasis on performance level.

210. The Developmental Growth of Air Power. (1:1:0) Prerequisite: concurrent enrollment in Aeros 200.
Development of various concepts of air power employment, emphasizing factors that have prompted research and technological change.

211. The Developmental Growth of Air Power. (1:1:0) Prerequisite: concurrent enrollment in Aeros 201.
Development of various concepts of air power employment, emphasizing factors that have prompted research and technological change.

300, 301. Leadership Laboratory—Juniors. (0.5:0:2 ea.)
As listed for Aeros 100/101. Students perform as cadet officers. Emphasis on leadership development.

305R. Leadership Laboratory—Honor Guard. (1:0:3 ea.) Prerequisite: approval of instructor.
Fundamentals of military leadership and drill with the M-1 rifle; emphasizes need for response to vested authority, with opportunity to develop confidence, military bearing, and other interpersonal skills; students perform as cadet leaders.

310. Management and Leadership. (3:3:0) Prerequisite: concurrent enrollment in Aeros 300.
Writing, speaking, and listening as communication skills; management concepts; responsibilities and ethics for an Air Force junior officer.

311. Management and Leadership. (3:3:0) Prerequisite: concurrent enrollment in Aeros 301.
Principles of leadership, problem solving, decisions, discipline, and human relations. Emphasis on career planning as an Air Force junior officer.

320. Jet Pilot Introduction. (2:2:0)

399R. Academic Internship: Leadership Intern Program. (4:0:0) Sp, Su Recommended: Aeros 201 or 301.
Air Force ROTC field leadership training course. provides advanced fundamentals of military leadership, planning, organizing, and team building at various levels of responsibility. Enrollment limited to Air Force ROTC cadets.

400R, 401R. Leadership Laboratory— Seniors. (0.5:0:2 ea.)
As listed for Aeros 100/101. Senior cadets perform in leadership positions in planning and conducting all activities of the cadet corps.

410. National Security Affairs. (3:3:0) Prerequisite: concurrent enrollment in Aeros 400R.
Civilian control of military, civil-military interaction, the forming of defense strategy. Military profession; Russia, Europe, and East Asia regional studies.

411. National Security Affairs. (3:3:0) Prerequisite: concurrent enrollment in Aeros 401R.
Africa, Middle East, and Latin American regional studies; military operation other than war; military justice system; officer professional development.

Aerospace Studies Faculty

Professor
Kingsley, Lawrence S. (2003) BS, Utah State U., 1977; MS, Central Missouri State U., 1983.

Assistant Professors
Swigert, Brett T. (2001) BA, Brigham Young U., 1996.
Warr, Richard L. (2002) BS, Southern Utah U., 1996.

Agronomy and Horticulture

See Plant and Animal Sciences.

Afrikaans

See Germanic and Slavic Languages.

American Heritage (AHtg)

100. American Heritage. (3:3:0) Honors and Independent Study also.
Synthesis of American constitutional and economic principles, and patterns of historical development.

American Indian Languages

See Center for Language Studies.

American Sign Language

See Linguistics and English Language section of this catalog.

American Studies

Phillip A. Snyder, Coordinator
205 HRCB, (801) 422-2487

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

The American Studies degree program is open enrollment.

The Discipline

The American Studies major examines the sweep of American experience, society, culture, and civilization from a variety of viewpoints—literature, history, gender, humanities, regions, politics, ethnic groups, geography, art, economics, religion, and folklore—based in core courses designed to examine the American experience from a variety of standpoints. Majors are encouraged to develop particular skills in writing, literary criticism, historical research, and social, political, and economic analysis. The program provides not only rich interdisciplinary experience but also exposure to a variety of excellent scholars and teachers.

Career Opportunities

On graduation, American Studies students are usually qualified to enter graduate and professional schools (for law, MBA, MPA, PhD), government or community service, teaching, or advanced graduate studies in the liberal arts, including American studies, American civilization, American culture, American history, and American literature.

BA American Studies (45 hours*)

Major Requirements

1. Students can complete the Advanced Writing requirement by taking Engl 311, 312, 315, or 316 according to individual academic direction. Those interested in graduate work are urged to take the Hist 200, 490 option.
2. Majors should begin course work in the major by taking AmSt 303 fall semester of the sophomore or (at latest) junior year.
3. Complete the following prerequisite courses:
   PlSc 110.
   Econ 110.
   Hum 261, 262.
4. Complete the following:
   AmSt 303.
5. Complete ten courses from the following:
   AmSt 360, 390R (twice only), 395.
   ArtHC 345, 365.
   Econ 274.
   Engl 336, 358R, 392, 395R.
   Geog 250.
   Hist 366, 380, 395.
   Hum 420R, 425R, 430R, 440R, 460R, 490R.
   PlSc 320, 321, 322.

Note 1: The humanities courses and Engl 395R must be topics in an American subject.

Note 2: Course substitutions may be made only with written, prior permission of the American Studies chair.

Note 3: Students may substitute 3 credit hours of Washington, D.C., seminar credit for one American Studies elective.

*Hours include courses that may fulfill GE or university requirements.

Minor Western American Studies (18 hours*)

Major Requirements

1. Complete the following:
   AmSt 200.
2. Complete one course from three of the following four clusters:
   Natural Environment
   Biol 150.
   Geol 101.
   InBio 215, 225.
   Human Heritage
   Hist 361.
   Social Environment
   Anthr 345, 346, 350.
   Econ 274.
   Soc 327.
   Arts and Literature
   Engl 364, 368, 392.
   Span 365.
3. Complete additional elective courses to make a total of 18 hours. Electives may be chosen from the courses listed above that have not been used, from the additional courses listed below, or from topical courses on Western themes offered through academic departments or the Honors Program.
   Anthr 530, 535.
   Hist 364, 366, 382, 386, 394.
   RelC 342, 343.
   Span 461.

*Hours include courses that may fulfill GE or university requirements.

American Studies (AmSt)

Undergraduate Courses

200. The American West as a Region. (3:3:0)
Geography, natural history, history, and cultures of the American West.

303. Studies in the American Experience. (3:3:0)
Social and intellectual life in American culture from the colonial period to the present.

360. Film in American Culture. (3:3:0)
Selected readings, lectures, and analysis of specific motion pictures as social documents, reflecting different facets of the American experience.

390R. Topics in American Studies. (3:3:0 ea.)
Multidisciplinary study of a carefully defined problem in American culture. Topics vary.

395. Theories and Methods in American Studies. (3:3:0)
Prerequisite: AmSt 303.
Readings/discussion seminar introducing students to theories, definition, and practice of American Studies.

Ancient Near Eastern Studies

See International and Area Studies.

Ancient Scripture

See Religious Education in Academic Departments, Degrees, and Courses section of this catalog.

Animal and Veterinary Science

See Biology, Integrative Biology, and Plant and Animal Sciences sections of this catalog.

Anthropology

Joel C. Janetski, Chair
945 SWKT, (801) 422-3058

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All undergraduate degree programs in the Department of Anthropology are open enrollment.

The Discipline

Anthropology's central aims are to describe, interpret, and make meaningful human behavior in sociocultural systems. It also seeks to explain the similarities and differences in human behavior patterns among all peoples and cultures, both in the present and the past. Social and cultural anthropology study human society in the present, using participant-observation, interviewing, and other techniques to understand the full round of life in a single culture, a subculture, or a multicultural system. Archaeology provides methods for learning about the world's peoples who are no longer living; thus it is an important part of the anthropological family of special skills and interests.

Career Opportunities

Distinctive contributions are made by both anthropology and archaeology majors, and therefore jobs are available wherever social and cultural differences or social system complexity create difficulties. Social services, businesses, schools, development projects, medicine, and law all offer significant careers, and recent concern with environmental protection has opened up others. University teaching and research positions are limited in growth, but highly qualified students can find positions after obtaining the PhD degree from first-rank schools.

For archaeology majors, both legal and societal interest in understanding and preserving the past have resulted in increased job opportunities in state and national agencies required to observe recent preservation laws and in private corporations serving this end.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA Anthropology
  Emphases:
    Archaeology
    Sociocultural
BA Anthropology (Sociocultural double major)
Minor Anthropology

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Anthropology

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

1. Each student wishing to major in anthropology should arrange through the department office to counsel with a faculty advisor and prepare a proposed sequence of study. Following this, the student should meet with the department chair for final approval of the program.
2. Undergraduate students are allowed some, but not excessive, specialization.
3. All degrees are in the field of anthropology.

Special Opportunities for Field Study

The department offers a number of unusual curriculum and field study opportunities. Students interested in Pacific Island studies are encouraged to spend a semester or two at BYU— Hawaii, where this area of study is well represented. Selected courses are regularly counted toward BYU's major. Consult with the department chair or your faculty advisor about equivalences.

The department offers several field school opportunities. Archaeology students complete their requirement in the field school typically held in conjunction with an ongoing, local (Utah) research project and occasionally in more exotic settings (Jordan).

BA Anthropology: Archaeology Emphasis (48 hours*)

Major Requirements

1. Complete the following:
   Anthr 101, 110, 215, 300, 305, 309, 405.
2. Complete 3 hours from the following:
   Anthr 351, 378, 385, 390R, 580, 590R.
3. Complete 3 hours from the following:
   Anthr 350, 355, 365, 372, 374, 380, 390R, 530, 535, 540, 562, 564, 565, 566, 572, 574, 590R.
4. Complete 9 hours from the following:
   Anthr 349, 430, 431, 432, 433, 435, 436, 438, 439, 440, 447, 490R, 512, 515, 575.
5. Complete an additional 3 hours of electives from section 3 or 4 above.
6. Complete the following:
   Anthr 454R.
7. Complete 6 hours of the following:
   Anthr 455R.
8. Complete 2 hours of the following:
   Anthr 456R.

*Hours include courses that may fulfill GE or university requirements.

BA Anthropology: Sociocultural Emphasis (48 hours*)

Major Requirements

1. Complete the following:
   Anthr 101, 110, 300, 305, 309, 405.
2. Complete 6 hours from the following:
   Anthr 317, 326, 330, 335, 340, 343, 345, 346, 390R, 566.
3. Complete 12 hours from the following:
   Anthr 349, 430, 431, 432, 433, 435, 436, 438, 439, 440, 447, 490R, 515, 575.
4. Complete an additional 3 hours of electives from section 2 or 3 above.
5. Complete the following:
   Anthr 442, 495, 499R.

*Hours include courses that may fulfill GE or university requirements.

BA Anthropology (Sociocultural Double Major) (33 hours*)

The 33-hour sociocultural major is designed to accommodate the varying interests of students from a range of other disciplines, but it is only available to students completing an additional major in another field. Its purpose is to allow students with other majors to add the perspectives that anthropology is uniquely qualified to provide.

Major Requirements

1. Complete all requirements of a primary major. Double counting courses between primary major and anthropology will not be allowed.
2. Complete the following:
   Anthr 101, 305, 309, 405, 442, 495.
3. Complete 6 hours from the following:
   Anthr 317, 326, 330, 340, 343, 345, 390R.

4. Complete 6 hours from the following:
   Anthr 349, 430, 431, 432, 433, 435, 436, 438, 439, 440, 447, 490R.
5. Complete an additional 3 hours from sections 3 or 4 above.

*Hours include courses that may fulfill GE or university requirements.

Minor Anthropology (16 hours)

Minor Requirements

Complete 16 hours of department courses, with no more than two courses in addition to Anthr 108R from lower-division courses offerings.

Anthropology (Anthr)

Undergraduate Courses

101. Social/Cultural Anthropology. (3:3:0) Honors also.
Aspects of society and culture: kinship, beliefs, economy, and political order among peoples worldwide. Methods and perspectives used in social/cultural anthropology.

108R. Anthropological Films. (1:0:2 ea.) F, W
Examination of other cultures through ethnographic or archaeological film. Can be taken separately or concurrently with Anthr 101 or 110.

110. Introduction to Archaeology. (3:3:0) Honors also.
Review of great archaeological discoveries about the ancient world. Overview of world prehistory.

207. Experiments in Ancient Technology. (3:1:2)
Processes by which tools and other objects were produced anciently; experimental reproduction and use of ancient tools.

215. Introduction to Archaeology: Method and Theory. (3:3:0) W
Field and analytic methods and their relevance to data acquisition; use of theory and the relation of theory to methods.

280. Archaeology and the Scriptures. (3:3:0) Evening Classes only.
The Bible and the Book of Mormon compared with archaeological findings on early civilizations.

300. Biological Anthropology. (3:3:0) W, Sp
Relationships between human biology, environment, social structure, and culture. Concepts and data on race, primates, evolution, population genetics, growth, and sociobiology.

301. Human Osteology. (2:1:2) F even yr.
Identification and treatment of skeletal material found in archaeological excavations.

305. Anthropological Theory 2. (3:3:0) F
Major contributions to development of anthropological theory, circa 1920–1950.

309. Language in Culture and Society. (3:3:0) F, W
Sociocultural categories and processes as expressed through, and determined by, language. Semiotics: language as sign system. Ethnosemantics, syntactic analysis, translation problems, ethnography of speaking/communication.

312. Intercultural Communication. (3:3:0) F, W
Communication processes as affected by proxemic, kinesic, linguistic, social, institutional, worldview, and value differences and other aspects of culture. Seminar/workshop: theory, research methods, applications.

317. Native Peoples of North America. (3:3:0) F odd yr.
Indian groups at the time of the European arrival; social organization, beliefs, values, economy, and adaptation to environment.

326. Central American Society. (3:2:Arr.) F
History, culture, society, and life among peoples of Mexico and Central America.

330. Peoples of Africa. (3:3:0) W even yr.
Political, economic, and social organization, family life, language, worldview, religion, ritual, artistic expression, ecological adaptation, and contemporary development issues among rural and urban sub-Saharan peoples.

335. Peoples of India. (3:3:0) Sp
Society and culture on Indian subcontinent. Stratification, kinship, marriage, religion, politics, economics.

340. Peoples of the Middle East. (3:3:0) W
Ecology, social organization, and beliefs of nomadic, rural, and urban groups between western Africa and Pakistan.

343. Chinese Culture and Society. (3:3:0) F
Cultural and social institutions of traditional and modern China, including Mainland China, Taiwan, Hong Kong, or other areas of Chinese impact.

345. American Culture. (3:2:Arr.) W odd yr.
Unity and diversity in U.S. life. Social/cultural change processes illustrated and analyzed. Anthropological study of complex cultures. Seminar-type course involves substantial reading, writing, discussion.

346. Anthropology of Mormonism. (3:3:0) W even yr.
Intensive analysis of Mormon society and culture using a range of anthropological perspectives.

349. Museums and Culture. (3:3:0) W odd yr.
Museums in society. Cultural foundations of museum content and sociology of museum use. Analyzing museum studies literature with on-site visits to area museums.

350. Archaeological Cultures of North America. (3:3:0) W
Cultural developments of North American Indians (Canada, U.S., and northern Mexico) before Columbus.

351. Archaeology and the Bible. (3:3:0) F even yr.
Setting and context of the Bible as clarified and supplemented from archaeology, history, and related studies. Archaeological methods.

355. Mesoamerican Archaeology. (3:2:Arr.) F
Cultural-environment bases of ancient civilizations in Mexico and Central America. Olmec, Maya, Toltec, and Aztec cultures.

365. South American Archaeology. (3:3:0) F even yr.
Archaeological history of South America: Peru, Bolivia, and Ecuador.

372. Ancient Mayan Writing 1. (3:3:0) F even yr.
Nature and content of Mayan hieroglyphic writing, from A.D. 100 to 1600. Methods of decipherment, introduction to textual analysis, and application to interpreting Mayan language, art, world view, and society. Literacy and the Mesoamerican background of Mayan script.

374. Ancient Mayan Writing 2. (3:3:0) W odd yr. Prerequisite: Anthr 372.
Advanced study of Mayan hieroglyphic writing. Guided workshop focusing on inscriptions, rituals, dynastic history, and linguistic records from major Mayan cities. Archaeological setting and preparation of technical commentaries emphasized.

378. Near Eastern Archaeology. (3:2:Arr.) W
Peoples and culture history in Mesopotamia, Syria, Palestine, Egypt, 3500–500 B.C. Substantial reading, writing, discussion.

380. Historical Archaeology. (3:2:Arr.) F
Archaeological study, excavation, and restoration of sites like Nauvoo and Williamsburg. Substantial reading, writing, and discussion.

385. Ancient Peoples and Cultures of Europe: The Origins of European Civilization. (3:3:0) F odd yr.
European culture and archaeology from initial settlement to Vikings. Agriculture, political organization, urban settlement, population movement, early astronomy, religious development. Bronze and Iron Ages, Roman expansion.

390R. Special Topics in Regional Anthropology. (1–3:Arr.:0 ea.) On dem.
Subjects related to a particular area or people. Offered when unique opportunities or needs arise.

405. Anthropological Theory 3. (3:3:0) W
Major contributions to development of anthropological theory, circa 1950–1980.

420. Language and Cultural Insight. (3:3:0) F, Sp
Students will demonstrate language competence and increase cultural awareness using an "uncommon language." Interview, analysis, and writing skills emphasized. Document will be in uncommon language with translation and report in English.

430. Moral and Ritual Institutions. (3:3:0) F even yr.
Anthropological approaches to religion; its content and relation to other social institutions in societies ranging from gatherers to industrialists.

431. The Family, Marriage, and Kinship. (3:3:0) W
Nature of kinship; parent-child, sibling, grandparental relationships. Genealogical basis of society: family, lineage, clan, kindred organization. Marital status; in-law relations; joking and avoidance behavior; divorce.

432. Political and Legal Institutions. (3:3:0) F odd yr.
Power, politics, law, the state, rebellion and revolution, warfare, hegemony, etc., in simple and complex societies as approached from social theory and anthropology.

433. Economic Anthropology. (3:3:0) F
Social context of production, distribution, and consumption in nonindustrial societies; technology; exchange and redistribution of resources. Currency, property rights, capital, recruitment, and rewards of labor.

435. The Anthropology of Art: Images, Ideas, and Craft in the Non-Western World. (3:3:0) W odd yr.
Comparative study of Western and non-Western traditions of beauty, artistic creation, images, myth, and ritual. Social, semiotic, and political functions of art. Colonial and modern interactions.

436. Symbolic Anthropology. (3:3:0) F odd yr.
Social use and understanding of semiotics, signs, symbols, and other meaningful forms as critically constitutive of culture.

438. Social Stratification. (3:3:0)
Anthropological consideration of organized social inequality, focusing on class, caste, gender, and ethnicity.

439. Theory of Complex Societies. (3:3:0)
Anthropological approaches to complex societies—from those historically of at least state level to the modern integrated world system.

440. Small-Scale Societies. (3:3:0) W even yr.
Ethnographic and archaeological studies of band and tribal societies (hunter-gatherers and simple farmers) from around the world.

442. Ethnographic Skills. (3:2:Arr.) W, Sp
Methods, rationale, limitations, and ethical issues of participant observation, interviewing, quantitative measurement, and other procedures of ethnographic fieldwork. Local field project.

447. Applying Anthropology. (3:3:0)
Seminar-workshop. Anthropological principles and methods applied to business, education, communications, development projects, health sciences. Careers, ethics.

450. Seminar in Anthropology of Education. (3:3:0) F
Prerequisite: Anthr 101, 405.
Anthropological theories of and qualitative research in child rearing, enculturation, cognition, informal education, schools, literacy, multicultural and multilingual education, and cultural transmission and acquisition.

454R. Field School Preparation. (1:1:1 ea.) W Prerequisite: major status.

455R. Field School of Archaeology. (1–6:0:Arr. ea.) Sp or Su
Prerequisite: Anthr 454R; major status.
Training and experience in excavation at a BYU-sponsored dig.

456R. Lab Skills for Anthropology. (2–6:Arr.:Arr. ea.) F
Prerequisite: Anthr 455R; major status.
Analytical and laboratory techniques as part of a BYU-sponsored archaeological project.

470. Museology. (3:1:4)
Philosophy, methods, and techniques of the planning, operation, and promotion of museums as educational and research institutions.

475. Introduction to Museum Practices. (3:2:4) W Prerequisite: instructor's consent.
Broadest possible range of experience in museum disciplines (registration, curation, exhibition, museum law and ethics, etc.) Career paths.

490R. Special Topics in Theory and System. (3:3:0 ea.) On dem.
Subjects related to anthropological theory or the operation of social systems. Offered when unique opportunities or needs arise.

495. Ethnographic Field Project. (3–4:0:Arr.) Sp Prerequisite: Anthr 442.
Conduct field work, maintain field notes, and write a paper incorporating both descriptive and analytic components.

496R. Academic Internship: Research. (1–3:Arr.:Arr. ea.)
Prerequisite: supervising instructor's consent.
Field or library research.

497. Directed Readings. (3:Arr.:0) Prerequisite: major status; supervising instructor's consent.
Reading 2,500 pages on a stated topic.

499R. Senior Thesis. (2:0:0 ea.) F Prerequisite: Anthr 495.
Supervised analysis and write-up of data generated during field project.

500-Level Graduate Courses (available to advanced undergraduates)

Undergraduate BYU anthropology students may enroll for the following courses if they have completed 30 hours in their major.

501. Archaeological Systematics. (3:3:0) F
Major contributions and current development in archaeological method and theory.

510. History of Archaeology. (3:3:0) W
Historical approach to development of archaeological knowledge, method, and theory, emphasizing North America and individual contributions.

512. Heritage Resource Management. (3:3:0) F even yr.
Prerequisite: admittance into graduate program in archaeology.
Legal and ethical issues in archaeology and museum studies. Preservation law, collections law, public archaeology, Native American issues, and careers in archaeology and museums.

515. Settlement, Trade, and Urbanism: Understanding the Ancient Landscape. (3:3:0)
Comparative study of beginnings of settled life, systems of exchange, and city life. Special attention to theory as applied to evidence from the new and old worlds.

525. Museum Registration and Collections Management. (3:3:0) F Prerequisite: Anthr 349 or equivalent.
Instruction and hands-on projects in managing anthropological collections: object-handling, object-tracking, accessing, deaccessioning, cataloging, collections databases, loans, conservation environments, museum law, and ethical practices.

526. Museum Curation and Programming. (3:Arr.:Arr.) W
Prerequisite: Anthr 525.
Research and connoisseurship of anthropological collections, curatorial writing, law, and ethics as regards curatorial concerns. Current thought and literature in museum education.

530. Great Basin Archaeology. (3:3:0) F odd yr.
Overview of ethnography, history of research, and prehistory of the Great Basin culture area. Current issues in archaeological research emphasized.

535. Southwest Seminar. (3:3:0) F even yr.
Overview of ethnography and prehistory of American Southwest. Current issues in archaeological research emphasized.

540. Issues in Historic Archaeology. (3:3:0) Prerequisite: Anthr 380.
In-depth review of issues, trends, and methods of historic archaeology.

550. (Anthr-Ling) Sociolinguistics. (3:3:0) W
Research and theory in anthropological linguistics and sociolinguistics.

551. (Anthr-Ling) Anthropological Linguistics. (3:3:0) F
Language in culture and society: development, typology, and description.

560. Comparative Mayan Linguistics. (3:3:0) F
Grammatical, semantic, lexical, and phonological issues in comparative Mayan. Historical linguistics of Mayan language family. Languages relevant to understanding classic Mayan language and script emphasized.

562. Formative Mesoamerica. (3:3:0) F even yr.
Topics and issues concerning beginnings and development of Mesoamerican civilizations. Mexican and Mayan antecedents of classic Mayan civilization and culture.

564. Classic Mayan Civilization. (3:3:0) W
Topics and issues concerning archaeological and cultural aspects of classic Mayan civilization and society.

565. Mayan Ceramic Analysis. (3:3:0) W odd yr.
Current approaches to classification and analysis of archaeological ceramics, particularly Maya Lowland pottery. Laboratory study of actual pottery collections from the Maya area.

566. Mayan Ethnohistory. (3:3:0) F odd yr.
Topics and issues of cultural change, colonization, and documentation of change processes in the Mayan region, from postclassic period and independence from Spain.

572. Ancient Mayan Writing 1. (3:3:0) F even yr.
Nature and content of Mayan hieroglyphic writing, from A.D. 100 to 1600. Methods of decipherment, introduction to textual analysis, and application to interpreting Mayan language, art, world view, and society. Literacy and the Mesoamerican background of Mayan script.

574. Ancient Mayan Writing 2. (3:3:0) W odd yr. Prerequisite: Anthr 372 or 572.
Advanced study of Mayan hieroglyphic writing. Guided workshop focusing on inscriptions, rituals, dynastic history, and linguistic records from major Mayan cities. Archaeological setting and preparation of technical commentaries emphasized.

575. Writing Systems. (3:3:0) W even yr.
Comparative study of writing around the world, emphasizing ancient scripts. Topics include: linguistic concepts; social, political, and economic function of early script; ancient literacy; development and extinction of script.

580. Near East Seminar. (3:3:0) F even yr.
Current issues in Near Eastern archaeological research.

590R. Seminar. (2–3:Arr.:0 ea.) On dem.
Special topics in archaeology.

596. Museum Projects. (3:2:4) F, W Prerequisite: Anthr 475 or equivalent; instructor's consent.
One or more supervised museum projects, such as producing an exhibition, developing educational materials, or accessing collections.

599R. Academic Internship: Federal Agency. (1–6:0:0 ea.) On dem.
Earning credit while employed in federal agency archaeology. Agencies include the BLM and U.S. Forest Service.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Anthropology Faculty

Professors
Clark, John E. (1990) BS, MA, Brigham Young U., 1976, 1979; PhD, U. of Michigan, 1994.
Forsyth, Donald W. (1979) BA, MA, Brigham Young U., 1971, 1972; PhD, U. of Pennsylvania, 1979.
Hawkins, John P. (1974) BS, Brigham Young U., 1970; MA, PhD, U. of Chicago, 1972, 1978.
Houston, Stephen D. (1994) BA, U. of Pennsylvania, 1980; MA, PhD, Yale U., 1983, 1987.
Janetski, Joel C. (1983) BA, Brigham Young U., 1965; MA, PhD, U. of Utah, 1977, 1983.
Matheny, Ray T. (1964) BA, MA, Brigham Young U., 1960, 1962; PhD, U. of Oregon, 1968.

Associate Professors
Crandall, David P. (1994) BA, Brigham Young U., 1986; MPhil, DPhil, Oxford U., England, 1989, 1993.
Johnson, David J. (1987) BA, MA, PhD, U. of Utah, 1972, 1982, 1987.

Assistant Professor
Hartley, Julie (2001) BA, Brigham Young U., 1992; MA, Utah State U., 1994; PhD, Columbia U., 2001.

Adjunct Faculty
Allen, Marti Lu (1992) BA, U. of Missouri, Columbia, 1975; AM, PhD, U. of Michigan, 1978, 1985.
Andrus, Edwin K. (1981) BA, MA, Brigham Young U., 1971, 1973.
Baker, Shane A. (1991) BS, MS, Brigham Young U., 1984, 1990.
Buonforte, Richard H. (1990) BA, Brigham Young U., 1982; MA, MPhil, Yale U., 1984, 1985.
Olsen, Steven L. (1992) BA, Brigham Young U., 1975; AM, PhD, U. of Chicago, 1978, 1985.
Olsen, William C. (1999) BS, MLS, Brigham Young U., 1980, 1983; MA, U. of Rochester, 1986; PhD, Michigan State U., 1998.

Emeritus
Sorenson, John L. (1971) BS, MA, Brigham Young U., 1951, 1952; MS, California Inst. of Technology, 1952; PhD, U. of California, Los Angeles, 1961.

Arabic

See Asian and Near Eastern Languages.

Art

See Visual Arts.

Asian and Near Eastern Languages

Dilworth B. Parkinson, Chair
4072 JKHB, (801) 422-4684

College of Humanities Advisement Center
3078 JKHB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Asian and Near Eastern Languages are open enrollment. Some special limitations apply for teaching majors.

The Discipline

The many countries of Asia and the Near East are among the oldest civilizations in the world. The study of the languages and cultures of these nations gives students access to some of the richest and most varied traditions of thought, belief, and behavior to be found in the world. A large percentage of the vast, essentially non-Christian segment of the world's population resides in these two zones: Asia—with its diverse heritage of belief in Hinduism, Buddhism, Taoism, Confucianism, and other systems of thought—continues to retain its "exotic" image for most Westerners, even though many nations in the region are at the forefront of contemporary politics and economics. The Near East, birthplace of Christianity, Judaism, and Islam, remains a little-understood, often stereotyped area of considerable economic, strategic, and religious importance today.

The languages of these regions are themselves generally difficult, with complex writing systems that require diligent study. But exposure to these languages and the cultures they express will enable students to look at the world from new perspectives and deepen their understanding of peoples whose history and practices are widely divergent from their own.

Courses in the department equip students with verbal and written facility in the languages of their chosen area, whereas linguistics courses offer an understanding of how the languages are structured and acquired. A study of the literature reveals old and sophisticated traditions no less important than that of English or any other major language.

Majors are available in Chinese, Japanese, and Korean. Students can obtain a minor in Arabic and Hebrew. Each major discipline is briefly described below.

Chinese (Cantonese and Mandarin)

The study of Chinese accesses the literature, thought, culture, and society of the world's largest population with the longest cultural continuum; moreover, since the civilizations of Japan, Korea, and Vietnam are founded on traditional Chinese Confucianism, a major in Chinese opens up much of the wider world of modern Asia. You will communicate in spoken and written Mandarin, gain skills in analyzing and appreciating both traditional and modern literature, acquire effective research strategies, and learn to write clearly and persuasively. All the personal enrichment and interpersonal understanding that results from a liberal arts education in the humanities is offered through the study of Chinese.

Japanese

Although Japan's economic successes are widely recognized, few people know much about the rich cultural heritage of Japan in literature, thought, painting, music, and the other arts. The study of Japanese language and literature will introduce you to many of the major aspects of that heritage while providing the kind of training in language and social skills that will prepare you to undertake careers in a wide variety of fields. The study of Japanese at the university level is aimed at providing you with superior language skills—in both speaking and reading—and a sophisticated understanding of Japan and its people acquired through an examination of the literature and culture.

Korean

Korean is a difficult language, and at BYU we emphasize reading and writing the language as well as speaking and listening. Basic course work emphasizes linguistic skill and the language's literary value and tradition.

Note: Instruction is also regularly available in Hebrew and Arabic.

Career Opportunities

Students who major or minor in the languages and cultures of Asia and the Near East will find that, as will any other humanities-centered course of study, they have been well provided with tools to communicate both in the target language and in English and have broadened and deepened their knowledge of the region of their choice. Career options are many and varied for such students, but those who do not plan to continue on in the academic study of the language are strongly urged to consider a second major or a strong minor in a practical field that can be combined with their language skills. In the competitive world of today, language ability alone no longer provides the competitive advantage it once offered on the job market. Students are urged to consult the College of Humanities Advisement Center, Career Placement Services, and their academic advisors for the best ways to make use of their language as they begin to seek employment.

Chinese

Chinese majors have all of the advantages of the liberal arts graduate (who claims effective communication and interpersonal skills) with the added edge of knowing the language and culture behind a leading world economy. Therefore, graduates enter the work force in a wide variety of occupations, such as journalism, insurance, business, travel, investment, and government service. They not only are marketable as trained linguists, translators, and cultural advisors, but are vigorously recruited as personnel managers and business representatives by companies with overseas interests.

Japanese

In recent years, graduates from the Japanese major at BYU have gone on to law, engineering, computer, or MBA programs, while others have continued on to medical school. A few have pursued graduate work in a variety of academic fields at some of the most prestigious universities in the country. Others have gone directly to work in government service, in the military, and in American or Japanese business firms where their language ability and cultural background are in high demand.

Korean

Most of the jobs available for students with a Korean major are in government (NSA, CIA, FBI), etc., but Korean majors also have all the advantages of a liberal arts degree. Many of our graduates go on to professional schools, law, business, or medicine. Korean is an excellent complement, either as a major or minor, to studies in prelaw, political science, accounting, English, international relations, and many other majors available on campus. Korean is an important language in the world of diplomacy and defense, as well as the world of international business. (Korea is the eighth largest trading partner of the U.S.) Our graduates have been hired by the U.S. government and by U.S., international, and Korean businesses. They work in technical areas as well, involving everything from computers to broadcasting to medicine.

General Information

The Department of Asian and Near Eastern Languages strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year.

Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Chinese
BA	Japanese
BA	Japanese Teaching
BA	Korean
Minors	Arabic
	Chinese
	Chinese Teaching
	Hebrew
	Japanese
	Japanese Teaching
	Korean

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Language Acquisition (Arabic, Chinese, Japanese, or Korean)

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

Language Credit by Examination

Credit by examination is available for many lower-division courses of the above-listed languages. Enrollment in an advanced class is prerequisite to taking the examination.

The following languages are *not* taught on a regular basis but may be offered if sufficient demand exists. Credit by examination is available for some of the Near Eastern languages listed below.

Akkadian
Aramaic
Egyptian
Persian (Farsi)
Syriac
Turkish
Ugaritic

Arabic

Minor Arabic (15–36 hours*)

Prerequisite

Arab 101, 102, 201, 211R, 301.

Minor Requirements

1. Complete the following:
   Arab 311R.
2. Complete 13 additional hours of upper-division Arabic classes from one of the options below:
   a. For students who do not attend the Intensive Arabic Program abroad, complete 13 hours from the following:
      Arab 451, 452, and 5 more hours of upper-division credit.
   b. For students who do attend the Intensive Arabic Program abroad, complete 13 hours from the following:
      Arab 331, 452, and 5 more hours of upper-division credit (usually the Arabic New Testament course and the Arabic history or sociology course taught as part of the program).
3. Complete one survey course, taught in English, from the following (unless already taken in conjunction with the Near Eastern Studies major):
   Hum 242.
   Arab 361, 362.

*Hours include courses that may fulfill GE or university requirements.

Arabic (Arab)

Undergraduate Courses

100. Introduction to Arabic. (1:1.5:0)
Beginning Arabic. Offered at the Jerusalem Center for Near Eastern Studies only.

101. First-Year Arabic. (4:5:0)
Basic skills of spoken and written Arabic. Suggested first class for students learning Arabic.

102. First-Year Arabic. (4:5:0) Prerequisite: Arab 101.
Second-semester Arabic. Basic language skills, both spoken and written.

201. Second-Year Arabic—Standard, Written. (4:5:0) Prerequisite: Arab 102 or equivalent experience and concurrent enrollment in Arab 211R.
Reading, grammar review, and vocabulary building in written Arabic.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Arab 102 or equivalent experience.
Intermediate spoken Arabic.

301. Intermediate Arabic—Standard, Written. (4:5:0) Prerequisite: Arab 201 and concurrent enrollment in Arab 311R.
Continuation of Arab 201.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Arab 201, 211R, or equivalent experience.
Advanced conversation skills.

331. Spoken Arabic. (4:5:0) Prerequisite: Arab 311R or equivalent experience.
Intensive study of the spoken language.

361. Introduction to Modern Arabic Literature in Translation. (3:3:0)
Reading and discussion of representative sample of modern Arabic short stories, novels, plays, and poetry. All readings in English.

362. Introduction to Medieval Arabic Literature in Translation. (3:3:0)
Reading and discussion of representative sample of medieval Arabic literature. All readings in English.

431. Spoken Arabic—Egyptian Dialect. (4:5:0) Prerequisite: Arab 331 or equivalent experience.
Introduction to colloquial literature.

451. Advanced Modern Standard Arabic. (4:5:0) Prerequisite: Arab 301.
Advanced work in reading, writing, listening, and speaking.

452. Newspaper Arabic. (4:5:0) Prerequisite: Arab 451.
Extensive reading of Arabic newspapers and magazines, with appropriate vocabulary building.

453. Readings in the Social Sciences. (3:3:0) Prerequisite: Arab 452.
Reading of original Arabic sources in political science, history, international relations, and other social science fields.

461. Survey of Modern Arabic Literature. (3:3:0) Prerequisite: Arab 452.
Reading and discussion of representative sample of modern Arabic short stories, novels, plays, and poetry.

462. Survey of Medieval Arabic Literature. (3:3:0) Prerequisite: Arab 452.
Reading and discussion of representative sample of medieval Arabic literary works, including poetry, 'Adab literature, Maqaamaat, folk literature, travel literature, biography, philosophy, and history.

471. The Structure of Arabic. (3:3:0) Prerequisite: Arab 452.
Arabic phonology, morphology, syntax, and semantics, with a review of current scholarship in Arabic linguistics.

490R. Independent Readings. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Independent readings of Arabic materials.

500-Level Graduate Course (available to advanced undergraduates)

531R. Advanced Topics in Arabic. (1–3:5:0 ea.) Prerequisite: instructor's consent.
Advanced studies in Arabic language and literature.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Chinese

BA Chinese (41–53 hours*)

Major Requirements

1. Complete the following prerequisite courses (or equivalents):
   Chin 101, 102, 201.
2. Complete the following:
   Chin 202, 301, 302, 321, 322, 495.
3. Complete one course from the following:
   Chin 343, 344.
4. Complete one course from the following:
   Chin 325, 326.
5. Complete three courses from the following:
   Chin 441, 442, 443, 444.
6. Complete 6 additional hours required from upper-division Chinese. It is mandatory that students consult with their advisor to determine supporting courses appropriate to professional goals.

*Hours include courses that may fulfill GE or university requirements.

Minor Chinese (22–39 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Chin 101, 102, 201, 202.
2. Complete the following:
   Chin 301, 302, 441.
3. Complete one course from the following:
   Chin 443, 444.
4. Complete one course from the following:
   Chin 321, 322.
5. Complete one course from the following:
   Chin 343, 344.
6. Complete one additional class above 301.

*Hours include courses that may fulfill GE or university requirements.

Minor Chinese Teaching (26–42 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Chin 101, 102, 201, 202.
2. Complete the following:
   Chin 301, 302, 326, 377, 441.
3. Complete one course from the following:
   Chin 321, 322.
4. Complete one course from the following:
   Chin 443, 444.
5. Complete one course from the following:
   Hist 340, 339R.

*Hours include courses that may fulfill GE or university requirements.

Chinese—Mandarin (Chin)

Undergraduate Courses

101. Beginning Mandarin. (4:5:2)
Basic grammar, vocabulary building, speaking.

102. Beginning Mandarin. (4:5:2) Prerequisite: Chin 101 or equivalent.
Continuation of Chin 101.

112. Beginning Chinese Reading. (2:2:0) Prerequisite: equivalent of one year spoken Mandarin skills.
Chinese writing system, reading, and basic composition using Chinese characters.

200R. Chinese Calligraphy. (2:0:2 ea.) Prerequisite: Chin 101 or equivalent.
Training in the art of writing Chinese characters with a brush.

201. Intermediate Mandarin. (4:5:1) Prerequisite: Chin 102.
Advanced grammar, the writing system, reading and writing, speaking.

202. Intermediate Mandarin. (4:5:1) Prerequisite: Chin 201.
Advanced grammar, the writing system, reading and writing, speaking.

211R. Intermediate Conversation. (2:2:1 ea.) Prerequisite: Chin 102.
Emphasis on fluency and vocabulary building.

301. Advanced Mandarin. (4:5:1) Prerequisite: Chin 202.
Discourse grammar, advanced reading.

302. Advanced Mandarin. (4:5:0) Prerequisite: Chin 301.
Advanced-level Mandarin skills, especially media discourse and reading.

311R. Advanced Conversation. (2:2:1 ea.) Prerequisite: Chin 202 or equivalent.
Emphasis on sophistication of speech.

321, 322. Selected Readings of Modern Chinese. (3:3:0 ea.) Prerequisite: Chin 302.
Complements overall language competency through reading modern texts selected from a wide range of styles and genres.

325. Structure of Chinese. (3:3:0) Prerequisite: Chin 202.
Sound, syntax, meaning, and word structure of Mandarin Chinese and its implications to problems of learning Chinese.

326. Introduction to Chinese Linguistics. (3:3:0) Prerequisite: Chin 202.
Dialectology, phonology, syntax, semantics, discourse, morphology, and sociolinguistics.

327. Chinese Translation and Interpretation. (3:3:0) Prerequisite: Chin 301.
Translation techniques, with practice in oral and written translation either from Chinese to English or from English to Chinese.

343. Chinese Literature in Translation—Poetry. (3:3:0)
All readings in English; topics vary.

344. Chinese Literature in Translation—Prose. (3:3:0)
All readings in English; topics vary.

345. Chinese Culture. (3:3:0)
Introduction to the institutions, culture, religions, and fine arts of China. All texts read in English.

346. Introduction to Chinese Philosophy. (3:3:0) W Alt. yr.
Introduction to native Chinese philosophies of Confucianism and Taoism. Readings in translation of *Lun-yu, Meng-tsu, Lao-tzu,* and *Chuang-tzu*. Themes include self, society, and cosmos.

347. Business Chinese. (3:3:0) Prerequisite: Chin 301 or instructor's consent.
Introduction to terminology and format of business communication in Chinese, emphasizing both reading and writing of various forms of business communication.

377. Chinese Language Teaching Procedures. (3:3:0) Prerequisite: Chin 325 or 326 or instructor's consent.
Acquiring knowledge and skills specific to teaching Chinese as a foreign language. Conducted in Chinese and English.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Chin 202.
On-the-job cultural and/or language experience.

441, 442. Classical and Literary Chinese. (3:3:0 ea.) Prerequisite: for 441: Chin 301 or equivalent; for 442: Chin 441.
Introduction to syntax and stylistic patterns.

443. Modern Chinese Literature. (3:3:0) Prerequisite: Chin 321 or 322.
Authors, themes, and writing styles of the period 1915–1949. Texts in Chinese.

444. Contemporary Chinese Literature. (3:3:0) Prerequisite: Chin 321 or 322.
Contemporary literature of Taiwan and the PRC. Texts in Chinese.

445R. Chinese Poetry. (3:3:0) Prerequisite: Chin 343, 441.
Readings in Chinese poetry. Topics vary from classical and modern poetry. Various themes and genres introduced, emphasizing shi poetry. Texts in Chinese.

490R. Individual Study in Chinese. (1–3:Arr.:0 ea.) Prerequisite: project approval by instructor.
Assignments to fit individual needs of the advanced student.

495. Senior Seminar for Majors. (2:2:0) Prerequisite: advanced knowledge of Chinese.
Research methods in Chinese language sources. Paper required.

500-Level Graduate Course (available to advanced undergraduates)

599R. Academic Internship. (1–9:0:0 ea.) Prerequisite: coordinator's and department's consent.
On-the-job cultural and/or language experience.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Chinese—Cantonese (Cant)

Undergraduate Courses

101. First-Year Cantonese. (4:5:0)
Basic language skills.

102. First-Year Cantonese. (4:5:0)
Basic language skills.

201. Second-Year Cantonese. (4:5:0) Prerequisite: Cant 102 or foreign residence experience.
Grammatical patterns and vocabulary of spoken and written Cantonese.

202. Second-Year Cantonese. (4:5:0) W Prerequisite: Cant 201 or equivalent.
Intermediate to advanced skills in reading, writing, listening, and speaking.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Cant 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Cant 211 or foreign residence experience.
Advanced conversational skills.

Hebrew

Minor Hebrew (18–28 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Heb 101, 102.
2. Complete the following:
   Heb 201.
3. Complete one course from the following:
   Heb 313, 331.
4. Complete one course from the following:
   Heb 421, 431.
5. Complete one of the following:
   Heb 202, 312.
6. Complete 4 hours from the following:
   Heb 311R, 411R, 441, 531R.

*Hours include courses that may fulfill GE or university requirements.

Hebrew (Heb)

Undergraduate Courses

100. Introduction to Hebrew. (1:1.5:0)
Beginning Hebrew; offered at the Jerusalem Center for Near Eastern Studies only.

101, 102. First-Year Hebrew. (4:5:2 ea.)
Modern Hebrew as spoken in Israel today.

111H, 112H. Honors Hebrew and the Old Testament. (3:3:0 ea.)
Rapid survey of biblical Hebrew. Must be taken in conjunction with specified Honors section of RelA 301 and 302.

131, 132. First-Year Biblical Hebrew. (4:5:0 ea.) Independent Study also.
Old Testament Hebrew. Provides foundation in grammar and vocabulary; reading Hebrew prose texts in Bible.

201. Second-Year Modern Hebrew. (4:5:0) Prerequisite: Heb 102 or equivalent.

202. Intermediate Readings. (4:4:0) Prerequisite: Heb 201 or equivalent.

311R. Intermediate Conversation. (2:2:0 ea.) Prerequisite: Heb 201.

312. Hebrew Media. (4:4:4) Prerequisite: Heb 101, 102.
Emphasizes reading, aural comprehension, and speaking Hebrew. Includes newspaper reading, listening to local news on radio and television, and in-class discussion of current events. Offered at the Jerusalem Center for Near Eastern Studies only.

313. Readings in the Old Testament. (3:3:0)
Readings in the Old Testament in Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only.

321. Intermediate Conversation and Media. (3:3:0) W alt yr. Prerequisite: Heb 101, 102.
Capitalizing on daily life in Jerusalem to increase speaking, reading, writing, and listening comprehension in modern Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only.

331. Readings in the Hebrew Scriptures 1. (4:5:0) Prerequisite: Heb 132, 201, or equivalent.
Grammar review and vocabulary building through reading historical and prophetic books.

411R. Advanced Conversation. (4:4:4) Prerequisite: Heb 311R or equivalent.
Emphasizes conversation in everyday situations. Students role play various situations in class and then apply their learning in Jerusalem. Offered at the Jerusalem Center for Near Eastern Studies only.

421. Readings in the Hebrew Translation of the New Testament. (3:3:0)
Readings in the New Testament in Hebrew translation. Offered at the Jerusalem Center for Near Eastern Studies only.

431. Readings in the Hebrew Scriptures 2. (4:4:0) Prerequisite: Heb 331.
Readings in the poetic and wisdom literature.

441. Postbiblical Hebrew: Mishnah. (2:2:0) Prerequisite: Heb 331.
Introduction to the grammar of Mishnaic Hebrew. Readings from various tractates of the Mishnah.

442. Postbiblical Hebrew: Talmud. (2:2:0) Prerequisite: Heb 331.
Selected readings from the Talmud.

443. Postbiblical Hebrew: Medieval Rabbis. (2:2:0) Prerequisite: Heb 331.
Readings in medieval rabbinic commentaries on the Hebrew scriptures.

444. Postbiblical Hebrew: Modern Hebrew Biblical Commentaries. (2:2:0) Prerequisite: Heb 331.
Readings in commentaries on the Hebrew scriptures in modern Hebrew.

500-Level Graduate Course (available to advanced undergraduates)

531R. Studies in Hebrew. (1–3:3:0 ea.) Prerequisite: Heb 331.

Japanese

BA Japanese (38–50 hours*)

Major Requirements

1. Students will be required to sit a comprehensive language exam covering grammar and Joyo Kanji.
2. A required reading list must be completed, evidenced by successful completion of Japan 492, normally during the last semester before graduation.

3. Counsel with advisor to determine supporting courses appropriate to your professional goals.
4. Complete the following prerequisite courses (or equivalents):
   Japan 101, 102, 201.
5. Complete one course from the following:
   Japan 202, 221.
6. Complete the following:
   Japan 301, 311R, 321, 322, 441, 443, 444, 492.
7. Complete one course from the following:
   Japan 325, 326.
8. Complete one course from the following:
   Japan 350, 351, 352.
9. Complete 6 hours from the following:
   Japan 325, 326, 345, 350, 351, 352, 377.
   (Optionally, one of the following may be substituted for Japan 345: Hist 343, 344, PlSc 354, 384.)

Recommended Courses

It is recommended that students complete Engl 311 or similar courses before enrolling in advanced literature courses.

*Hours include courses that may fulfill GE or university requirements.

BA Japanese Teaching (85–103 hours*, including certification hours)

Major Requirements

1. Students will be required to sit a comprehensive language exam covering grammar and Joyo Kanji.
2. A required reading list must be completed, evidenced by successful completion of Japan 492, normally during the last semester before graduation.
3. Complete an approved teaching minor (approximately 16–21 hours).
4. Complete the following prerequisite courses (or equivalents):
   Japan 101, 102, 201.
5. Complete one course from the following:
   Japan 202, 221.
6. Complete the following:
   Japan 301, 311R, 321, 322, 377, 441, 443, 444, 492.
   Ling 230.
7. Complete one course from the following:
   Japan 325, 326.
8. Complete one course from the following:
   Japan 350, 351, 352.
9. Complete 6 hours from the following:
   Japan 325, 326, 345, 350, 351, 352.
   (Optionally, one of the following may be substituted for Japan 345: Hist 343, 344, PlSc 354, 384.)
10. Complete the Professional Education Component (25–26 hours): see Secondary Education in the Teacher Education section of this catalog for certification requirements.

*Hours include courses that may fulfill GE or university requirements.

Minor Japanese (16–28 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Japan 101, 102, 201.
2. Complete one course from the following:
   Japan 202, 221.
3. Complete the following:
   Japan 301, 311R, 321, 322.

*Hours include courses that may fulfill GE or university requirements.

Minor Japanese Teaching (25–37 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Japan 101, 102, 201.
2. Complete one course from the following:
   Japan 202, 221.
3. Complete the following:
   Japan 301, 311R, 321, 322, 377.
4. Complete one course from the following:
   Japan 325, 326.
5. Complete one course from the following:
   Japan 345, 350, 351, 352.

*Hours include courses that may fulfill GE or university requirements.

Japanese (Japan)

Undergraduate Courses

100A. Beginning Japanese, Slow Paced 1. (3:3:1)
Grammar, vocabulary, basic conversation, and introduction to the writing system.

100B. Beginning Japanese, Slow Paced 2. (3:3:1) Prerequisite: Japan 100A.
Continuation of Japan 100A.

101, 102. First-Year Japanese. (4:5:1 ea.) Prerequisite: for 102, Japan 101, or equivalent.
Writing systems, grammar and vocabulary-building fundamentals, basic conversation and reading. Includes introduction to Chinese characters in 102.

201. Second-Year Japanese. (4:5:2) Prerequisite: Japan 102 or equivalent.
Further practice in conversation; basic reading and writing skills.

202. Second-Year Japanese. (4:5:0) Prerequisite: Japan 201 or equivalent.
Further practice in conversation, reading, and writing; introducing culture through short stories, articles. Not for returned missionaries.

211R. Second-Year Conversation. (1–3:Arr.:0 ea.) For Japan Study Abroad or Foreign Language Student Residence students only. Prerequisite: Japan 102 or equivalent.

221. Japanese Reading, Grammar, and Culture. (4:5:0) Prerequisite: Japan 201 or equivalent.
Reading and writing emphasizing essential characters, vocabulary, grammar, and culture. First course for returned missionaries.

301. Readings in Japanese History and Literature. (4:5:0) Prerequisite: Japan 202, 221, or instructor's consent.
Readings in Japanese history and literature with essential characters, vocabulary, and grammatical principles.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Japan 202, 221; or instructor's consent.
May be repeated for Study Abroad in Japan.

321. Selected Readings and Grammar. (3:3:0) Prerequisite: Japan 301 or equivalent.
Readings in modern documentary styles, emphasizing reading comprehension, grammar, and vocabulary building.

322. Selected Readings and Grammar. (3:3:0) Prerequisite: Japan 301 or equivalent.
Readings in modern short fiction, emphasizing grammar, reading comprehension, vocabulary building, and stylistic analysis.

325. Japanese Morphology, Syntax, and Semantics. (3:3:0) Prerequisite: Japan 301.
General overview of grammar and its practical application in composition.

326. Contrastive Analysis of Japanese and English. (3:3:0) Prerequisite: Japan 301.
Contrastive overview of Japanese and English phonology, syntax, semantics, and discourse.

345. Japanese Culture. (3:3:0)
General survey emphasizing aesthetics, religion, and value systems. All readings in English.

350. Japanese Literature in Translation—Eighth Through Sixteenth Centuries. (3:3:0)
Reading and discussing selected topics in Japanese literature (narrative, lyric, drama) from 700 through 1600 (Nara, Heian, and medieval periods).

351. Japanese Literature in Translation—Seventeenth Through Nineteenth Centuries. (3:3:0)
Reading and discussing selected topics in Japanese literature (narrative, lyric, drama) from 1600 through 1900 (Edo and Meiji periods).

352. Japanese Literature in Translation—The Modern Era. (3:3:0)
Reading and discussing selected topics in Japanese literature (narrative, lyric, drama) from Meiji period to the present.

377. Japanese Language Teaching Procedures. (3:3:0) Prerequisite: Japan 301 or instructor's consent.
Acquiring knowledge and skills specific to teaching of Japanese as a foreign language. Conducted in Japanese and English.

390. Japanese for Special Purposes. (3:3:0) Prerequisite: Japan 321 or equivalent.
Readings, video materials, discussions, and projects in content areas related specifically to business, science, and technology.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Japan 301.
On-the-job cultural and/or language experience.

441. Introduction to Classical Japanese. (3:3:0) Prerequisite: Japan 321 or 322.
Reading of premodern texts, emphasizing grammar and syntax, and showing differences from and influences on the modern idiom.

443. Advanced Readings and Grammar. (3:3:0) Prerequisite: Japan 322 or equivalent.
Reading and discussion of modern expository texts; developing advanced listening skills using authentic materials.

444. Modern Japanese Literature. (3:3:0) Prerequisite: Japan 321, 322; or equivalents.
Fictional texts from major twentieth-century authors. Texts primarily in Japanese.

490R. Individual Study in Japanese. (1–3:Arr.:0 ea.) Prerequisite: consent of advisor and instructor.
Topics vary. Assignments to fit individual needs of the advanced student.

492. Majors' Reading List. (1:1:Arr.) Prerequisite: department approval.
Guided reading course to meet reading list requirement. Required of all majors.

500-Level Graduate Course (available to advanced undergraduates)

599R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Japan 301.
On-the-job cultural and/or language experience.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Korean

BA Korean (39–51 hours*)

Major Requirements

1. Complete the following prerequisite courses (or equivalents):
   Korea 101, 102, 201.
2. Complete the following:
   Korea 202, 301, 325, 495.
   Hist 346.
3. Complete one of the following options:
   Either
   Korea 303, 321, 441.
   Or
   Korea 315, 340, 443.
4. Complete 12–14 hours from the option not selected above and/or the following (depending on selection of options, elective hours should be adjusted so that the major totals 39 hours not counting prerequisite courses):
   Korea 311R, 344R, 345, 399R, 411, 427, 441, 471, 490R, 599R.

Recommended

Prospective majors are urged to have a concurrent major in another standard discipline.

*Hours include courses that may fulfill GE or university requirements.

Minor Korean (14–30 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Korea 101, 102, 201, 202.
2. Complete the following:
   Korea 301.
3. Complete one course from the following:
   Korea 303, 315.
4. Complete 7 hours beyond Korea 301.

*Hours include courses that may fulfill GE or university requirements.

Korean (Korea)

Undergraduate Courses

101. First-Year Korean. (4:5:0)
Basic language skills.

102. First-Year Korean. (4:5:0) Prerequisite: Korea 101.
Basic language skills.

201. Second-Year Korean. (4:5:0) Prerequisite: Korea 101, 102.
Grammar, vocabulary, reading, and conversation.

202. Second-Year Korean. (4:5:0) Prerequisite: Korea 201 or equivalent.
Reading and writing emphasizing essential vocabulary and grammatical principles.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Korea 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

301. Intermediate Korean. (4:5:0) Prerequisite: Korea 202 or instructor's consent.
Reading, writing, grammar, and vocabulary.

303. Introduction to Sino-Korean Characters. (3:3:0) Prerequisite: Korea 301 or instructor's consent.
Most common Chinese characters used in Korean mixed script writings.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Korea 211R or foreign residence experience.
Advanced conversational skills.

315. Selected Readings and Composition. (3:3:0) Prerequisite: Korea 301.
Improving reading and writing skills. Readings include minimal amounts of Sino-Korean characters.

321. Sino-Korean Readings and Composition. (3:3:0) Prerequisite: Korea 303.
Readings in Sino-Korean mixed script texts, including newspapers. Some composition.

325. Applied Korean Linguistics and Grammar. (3:3:0) Prerequisite: Korea 301 or instructor's consent.
Applying linguistics to the problems of learning Korean; overview of Korean phonology, morphology, syntax, and semantics.

340. Introduction to Traditional Korean Literature. (4:4:0) Prerequisite: Korea 301.
Korean literature from earliest forms to modern period, emphasizing basic literary concepts.

344R. Korean Literature in Translation. (3:3:0 ea.)
Topics vary.

345. Korean Culture and Society. (3:3:0)
Understanding Korean peoples and culture through examining social, political, economic, and belief systems as well as literature. All readings in English.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Korea 301.
On-the-job cultural and/or language experience.

411. Advanced Conversation. (2:2:0)
Advanced conversation and listening comprehension.

427. Korean Translation and Interpretation. (3:3:0) Prerequisite: Korea 301.
Translation techniques with practice in oral and written translation both from Korean to English and from English to Korean.

441. Korean Documents. (4:4:0) Prerequisite: Korea 321 or Chin 441.
Introduction to readings in Chinese texts written as part of Korea's historic tradition, such as genealogies and the Yi Dynasty Annals. Also current political and economic materials.

443. Modern Korean Literature. (4:4:0) Prerequisite: Korea 340.
Survey emphasizing improvement of reading and translation skills. Criticism of literature as well as translations.

471. Advanced Readings in Korean Language and Literature. (3:3:0) Prerequisite: Korea 325.
Readings in current linguistic journals and contemporary literature and criticism.

490R. Individual Study in Korean. (1–3:Arr.:0 ea.)
Directed readings and individual assignments appropriate to individual needs of advanced students.

495. Senior Seminar. (2:2:0)
Individual research, with seminar paper the primary objective. Required for Korean majors.

496R. Academic Internship. (1–9:Arr.:0 ea.) Prerequisite: coordinator's and department's consent.
On-the-job cultural and/or language experience. Students must meet departmental requirements and consult coordinator before enrollment. Report required.

Near Eastern Languages

Near Eastern Languages (NeLg)

Undergraduate Courses

321R. Studies in Modern Near Eastern Languages. (4:4:2 ea.)
Grammar, reading, writing, and conversational skills.

340. Ancient Near Eastern Mythology. (3:3:0)
Major themes in mythological literature of Egypt, Canaan, Mesopotamia, Anatolia, and ancient Iran. All readings in English.

345. Texts and Ancient Temples. (3:3:0)
Major ancient Near Eastern texts dealing with the temple; analysis of primary elements of ancient temple type as a place of worship.

495. Senior Seminar in Near Eastern Studies. (3:3:0) Prerequisite: Near Eastern Studies major; senior status.
Capstone course for Near Eastern Studies majors. Includes major research paper demonstrating ability to integrate cross-disciplinary information and methodology.

511R. Studies in Ancient Near Eastern Languages. (2–4:4:0 ea.)
Grammar and reading skills.

521R. Special Topics in Ancient Near Eastern Literature. (2–3:3:0 ea.)
Historical and comparative studies of ancient Near Eastern literature.

Asian and Near Eastern Languages Faculty

Professors

Gessel, Van C. (1990) BA, U. of Utah, 1973; MA, PhD, Columbia U., 1975, 1979.

Honey, David B. (1987) BA, U. of California, Los Angeles, 1980; MA, PhD, U. of California, Berkeley, 1984, 1988.

Miller, J. Scott (1994) BA, Brigham Young U., 1982; MA, PhD, Princeton U., 1986, 1988.

Parkinson, Dilworth B. (1980) BA, Brigham Young U., 1975; MA, PhD, U. of Michigan, 1976, 1982.

Ricks, Stephen David (1981) BA, MA, Brigham Young U., 1974, 1976; PhD, U. of California, Berkeley, and Graduate Theological Union, 1982.

Watabe, Masakazu (1977) BA, MA, Brigham Young U., 1972, 1973; PhD, U. of Southern California, 1978.

Associate Professors

Belnap, R. Kirk (1990) BA, MA, Brigham Young U., 1983, 1986; PhD, U. of Pennsylvania, 1991.

Bourgerie, Dana S. (1991) BA, U. of Minnesota, 1982; MA, PhD, Ohio State U., 1987, 1990.

Christensen, Matthew B. (1995) BA, Brigham Young U., 1988; MA, PhD, Ohio State U., 1990, 1994.

Parry, Donald W. (1992) BA, MA, Brigham Young U., 1985, 1986; PhD, U. of Utah, 1992.

Perkins, George W. (1975) BA, Brigham Young U., 1962; MA, PhD, Stanford U., 1967, 1977.

Peterson, Daniel C. (1986) BA, Brigham Young U., 1977; PhD, U. of California, Los Angeles, 1990.
Peterson, Mark A. (1983) BA, Brigham Young U., 1971; MA, PhD, Harvard U., 1973, 1987.
Russell, Robert A. (1982) BA, U. of Utah, 1968; PhD, Harvard U., 1977.
Toronto, James A. (1992) BA, MEd, Brigham Young U., 1975, 1980; MA, PhD, Harvard U., 1984, 1992.
Warnick, J. Paul (1996) BS, MA, Brigham Young U., 1983, 1989; PhD, Ohio State U., 1996.
Williams, Gary S. (1966) BA, Brigham Young U., 1962; PhD, U. of Washington, 1973.

Instructor
Richards, Monica H. (2001) BA, Brigham Young U., 1995; MA, U. of Utah, 2001.

Emeriti
Beaman, Bruce W. (1970) BA, Brigham Young U., 1959; MA, Indiana U., Bloomington, 1969.
Lee, Tsaifeng (Mazie) (1965) BA, MA, U. of Hawaii, 1960, 1972.
Pack, Melvin Deloy (1974) BS, U. of California, Los Angeles, 1965; MA, Brigham Young U., 1973; PhD, U. of Pennsylvania, 1981.
Rhee, Honam (1987) BA, Hankuk U. of Foreign Studies, Korea, 1959; MA, Yonsei U., Korea, 1977; EdD, Brigham Young U., 1997.

Asian Studies

See International and Area Studies

Astronomy

See Physics and Astronomy.

Audiology and Speech-Language Pathology

David L. McPherson, Chair
136 TLRB, (801) 422-4318

David O. McKay School of Education Advisement and Certification Office
120 MCKB, (801) 422-3426

Admission to Degree Program

The degree program in the Department of Audiology and Speech-Language Pathology is open enrollment.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for the following undergraduate degree program.

Undergraduate Programs and Degrees

BS Audiology and Speech-Language Pathology
Minor Audiology and Speech-Language Pathology

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Audiology
MS Speech-Language Pathology

For more information see the BYU 2003–2004 Graduate Catalog.

BS Audiology and Speech-Language Pathology

(52 hours*)

The Discipline

Audiology is a relatively new discipline that relies on technology to deal with its primary concern, the measurement of hearing and hearing loss. Audiology includes studying the nervous system to learn how we sense, perceive, and derive information from the sense organs. Audiology students also learn about the development of speech and language, the anatomy and physiology of the ear, a variety of electronic test instruments that reveal the function of the intricate processes involved in hearing, and disorders and diseases of hearing. Physicians use audiological findings to diagnose and treat hearing problems. This information is also used in counseling the hearing impaired and for prescribing hearing aids. Teachers use the knowledge to understand and help children with hearing impairments.

The discipline of speech-language pathology emerged to help people who have lost or have never had the ability to speak normally. It serves persons with speech and language disorders such as stuttering, articulation problems, aphasia, voice problems, language delay, and similar disabilities. Students learn about speech and language development, the anatomy and physiology of the speech mechanism, the neurology of perception and production of speech and language, impairments that cause speech and language disorders, and communication disorders remediation. Professionals work in public schools, hospitals, private or community clinics, or private practice.

Career Opportunities

This is a preprofessional program leading to a master's degree that is required for entrance into the profession.

Major Requirements

1. Complete the following:
   ASLP 133, 230, 320, 321, 330, 331, 334, 350, 351, 438, 442, 450.
   ASL 101.
   Math 110 (or equivalent).
   Phscs 167.
   PDBio 220.
   Stat 221.
2. Complete 1 hour from the following:
   IP&T 286.

*Hours include courses that may fulfill GE or university requirements.

Minor Audiology and Speech-Language Pathology

(16 hours)

Minor Requirements

1. Complete the following:
   ASLP 133.
2. Complete an additional 14 hours of ASLP courses.

Audiology and Speech-Language Pathology (ASLP)

Undergraduate Courses

133. Introduction to Speech-Language Pathology and Audiology. (2:2:2) F, W
Overview of communication disorders, assessment strategies, and treatments.

230. Language Science. (3:3:1) F, W
Morphology, syntax, and semantic roles in language of children and adults; uses both manual and computer-assisted methods.

320. Speech Anatomy. (3:3:1) F Prerequisite: PDBio 220.
Basic anatomy and physiology of speech mechanisms.

321. Speech Science. (3:3:0) W Prerequisite: ASLP 320, Phscs 167.
Laboratory investigation of scientific bases of normal and disordered speech perception and production; for audiologists and speech language pathologists.

330. Language Development. (3:3:1) F
Overview of how children learn language, including its relationship to cognitive, neural, and social development; language development in bilingual, minority, and handicapped persons.

331. Phonology. (3:3:1) F
Transcription and analysis of normal and disordered sound production.

334. Basic Hearing Science. (3:3:0) F, W Prerequisite: Phscs 167.
Hearing anatomy, physiology, and science.

350. Language Disorders. (3:3:1) F, W Prerequisite: ASLP 330, 331.
Causes and characteristics of language impairment; techniques for diagnosis, assessment, and treatment of language disorders.

351. Disorders of Articulation and Phonology. (3:3:0) W Prerequisite: ASLP 331.
Causes and characteristics of phonological disorders; techniques for diagnosis, assessment, and treatment.

438. Hearing Tests and Measures. (3:3:1) F, W Prerequisite: ASLP 334.
Theory and practice of auditory assessment.

442. Pediatric Audiology. (3:3:0) F, W Prerequisite: ASLP 438.
Basic principles of hearing assessment and aural habilitation in children from birth to eight years.

450. Professional Practices in Schools, Hospitals, and Clinics. (3:3:0) F Prerequisite: ASLP 350, 351, 438.
Overview of issues related to clinical practice in public schools and other settings.

493R. Readings. (1–2:Arr.:Arr. ea.) F, W, Sp, Su

500-Level Graduate Courses (available to advanced undergraduates)

500. Research Methods. (3:3:0) F, W Prerequisite: Stat 221 or equivalent.
Research methods in audiology and speech-language pathology. Applying statistical techniques; professional literature and writing.

544. Psychoacoustics. (2:2:1) Alt. term
Advanced studies in human psychoacoustics and hearing science.

573. Aphasia. (3:3:0) W
Perspectives on the neurology, clinical assessment, and rehabilitation of aphasic language disturbances in adults.

574. Communicative Disorders of Individuals with Severe Disabilities. (3:3:0) W
Assessment and treatment of persons with multiple handicaps, including augmentive communication training.

575. Motor Speech Disorders. (3:3:0) F
Neuropathology, symptomology, clinical assessment, and treatment of adult motor speech disorders.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Audiology and Speech-Language Pathology Faculty

Professors
Brinton, Bonnie (1990) BA, U. of Utah, 1975; MA, San Jose State U., 1977; PhD, U. of Utah, 1981.
Culatta, Barbara (2000) BS, California State U. of Pennsylvania, 1969; MA, PhD, U. of Pittsburgh, 1970, 1975.
Fujiki, Martin (1990) BS, U. of Idaho, 1972; MS, PhD, U. of Utah, 1974, 1980.
Harris, Richard (1982) BS, North Dakota State U., 1973; MS, U. of Wisconsin, 1974; PhD, Purdue U., 1978.
McPherson, David L. (1991) BS, Brigham Young U., 1967; MA, George Washington U., 1969; PhD, U. of Washington, 1972.

Associate Professor
Channell, Ron W. (1983) BS, MS, Brigham Young U., 1977, 1979; PhD, U. of Utah, 1983.

Assistant Professors
Dromey, Christopher (2000) BA, Brigham Young U., 1985; MA, State U. of New York, Buffalo, 1990; PhD, U. of Colorado, 1995.
Nissen, Shawn (2002) BA, Brigham Young U., 1994; MA, PhD, Ohio State U., 1998, 2002.

Clinical Assistant Professors
Blair, Nancy (2000) BS, MS, Brigham Young U., 1993, 1995.
Robinson, Lee (1999) BS, MS, Brigham Young U., 1992, 1994.

Emeriti
Allred, Mildred T. Ravsten (1973) BA, MCD, Brigham Young U., 1952, 1971.
Low, Gordon M. (1964) BS, MS, U. of Utah, 1949, 1950; PhD, U. of Minnesota, Minneapolis, 1955.
Lucido, Bonnie Rae (1979) BS, MS, Brigham Young U., 1964, 1966; PhD, U. of Utah, 1994.
Newman, Parley W. (1966) BS, MS, Utah State U., 1950, 1951; PhD, U. of Iowa, 1954.

Austronesian Languages

See Center for Language Studies.

Biochemistry

See Chemistry and Biochemistry section of this catalog.

Biology

Biology Office
Shauna C. Anderson, Director
375 WIDB, (801) 422-4294

College of Biology and Agriculture Advisement Center
380 WIDB, (801) 422-3042

Admission to Degree Program

The degree program in biology has open enrollment.

The Discipline

A degree for students who desire a broad approach to biology, the major provides solid preparation for graduate schools in most fields of biology as well as for a full range of professional schools.

Career Opportunities

The biology major is designed to help students do the following: improve writing, use problem-solving skills to arrive at a possible diagnosis of a pathologic state, analyze and interpret experimental data, apply a mathematical paradigm to a biological concept, create conceptual models, learn to suspend judgment, critically read scientific literature, evaluate ability of an argument or evidence to support a conclusion, formulate questions and design experiments to answer them empirically, practice quantitative reasoning, distinguish cause from correlation, teach, judge biological concepts in a historical context, and identify similarities and differences.

The skills acquired in the biology major will be valuable to those students desiring to enter a variety of graduate programs or professional schools.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for the following undergraduate degree program.

Undergraduate Program and Degree

BS Biology

Students should see their college advisement center for help or information concerning the undergraduate programs.

BS Biology (56–60 hours*)

Major Requirements

1. Complete the following core requirements:
   Biol 120, 220, 240, 241, 340, 350, 360, 420, 421.
2. Complete one course from the following:
   InBio 380.
   MMBio 351.
   PAS 440.
   PDBio 305, 362.
3. Complete one course from the following:
   Math 112, 119.
   Stat 221.
4. Complete one of the following options:
   Either Phscs 105, 106, 107, 108.
   Or Phscs 121, 123, 220.
5. Complete at least 13 hours from the following:
   Chem 105, 106, 107, 152, 281, 351, 352, 353, 481.
6. Complete at least 12 hours of elective courses. Electives may include upper-division courses, mentored experience, or a combination of the two:
   a. Upper-division courses:
      1. Students may choose electives from any upper-division courses within the college (except Biol 339, 429, 439). Faculty advisors will be available to offer counsel on the choice of courses. In some cases preapproved upper-division courses from outside the college can be used to fill elective hours. For these prior approval must be obtained from the Biology Office.
      2. Students who are admitted to dental, optometry, podiatry, chiropractic, naturopathic, or pharmacy schools after their junior year can transfer credits from the first year of professional school back to BYU to fulfill the supporting course work requirements.
   b. Mentored experience:
      The mentored experience requires from three hours' minimum to six hours' maximum effort per week each semester for 1 hour of credit. The mentoring will ideally take place over the course of the student's final two semesters. Three options exist for obtaining mentored experience (BYU Study Abroad programs are unacceptable substitutes):
      1. Mentored research. Students must be accepted to work under a faculty member's direction. They will frequently associate with other researchers working under the mentor's direction. A written paper and oral presentation are required as fulfillment of the mentored experience. Student research often leads to participation in a publication and/or a presentation at a professional meeting.
      2. Mentored internship. Students may obtain credit for a previously approved academic internship program in which the appropriate credit hours are assigned for the experience.
      3. Senior thesis. The student may obtain credit for the production of a senior thesis, derived primarily from library study that extensively explores relevant questions determined by an approved faculty mentor. The senior thesis option consists of a combination of course work and credit for the senior thesis research. A prospectus for the senior thesis must be approved by the Biology Office prior to assigning the number of credit hours that apply to the thesis. The final thesis must be submitted and approved before credit will be accepted for the mentored experience.

Recommended Courses

The following courses are recommended for students interested in graduate and professional programs:
Chem 351, 352, 353, 481.
Math 119 or higher.
Phscs 105, 106, 107, 108

*Hours include courses that may fulfill GE or university requirements.

Biology Composite Teaching

See the Department of Integrative Biology for this degree program.

Health Professions

Health Professions Office
Don D. Bloxham, Director
380 WIDB (801) 422-3044

Students interested in chiropractic medicine, dentistry, dental hygiene, medicine, optometry, osteopathic medicine, pharmacy, podiatry, or in becoming a physician assistant may receive help in planning preprofessional course work and applying to the appropriate professional schools in the Health Professions Advisement Office.

Preveterinary Medicine

Beverly L. Roeder, Advisor
386 WIDB (801) 422-6873

Students interested in applying to veterinary medicine schools should take the following courses as part of the biology major:
Biol 291R, 392R (2 hours).
Chem 351, 352, 353 (1 hour), 481, 482.
Engl 316.
InBio 270, 380.
Math 119 or higher.
NDFS 330.
PDBio 484.
Stat 221.
TMA 150.

Biology Courses (Biol)

100. Principles of Biology. (3:3:1) F, W, Sp, Su Honors and Independent Study also.
Introductory course for general education students.

120. Science of Biology. (2:2:1) F, W
History of science; nature, tools, and results of experimental inquiry.

139. Freshman Premedical Seminar. (0.5:0.5:0) F, W
Introduction to BYU premedical program.

150. Environmental Biology. (3:3:0) W
Conservation and management of natural resources concurrent with increasing socioeconomic and human population demands; factors such as soil, water, and air pollution, resources management, bioremediation, nutrient cycles, and global climate changes.

190R. Biology and Agriculture Seminar. (1:1:0) F, W
Exploration of issues in biology and agriculture; presentations by faculty and guest lecturers.

220. Biodiversity. (2:2:0) F, W Prerequisite: Biol 120.
Diversity of life on earth: its origins, global distribution patterns, services and values to humankind, and the challenge of protecting it.

227. Preview into Optometry. (1:Arr.:0) For sophomores and juniors. F, W
Advantages and disadvantages of the optometric profession. Applying to and preparing for optometry school.

229. Preview into Dentistry. (1:Arr.:0) For freshmen and sophomores. F, W
Advantages and disadvantages of the dental profession. Application to and preparation for dental school.

240. Molecular Biology. (2:2:1) F, W Prerequisite: Biol 100 or equivalent, 120, 220; Chem 152 or 351 or concurrent enrollment.
Fundamentals of protein and nucleic acid structure and their function in the context of the classical experiments that have informed our current models of biology at the molecular level.

241. Molecular and Cellular Biology Laboratory. (1:0:3) F, W Prerequisite: Biol 240 or concurrent enrollment.
Molecular and cellular biology techniques laboratory.

276. Genetics and Reproduction. (3:3:0) Independent Study also. Prerequisite: any biology course.
Principles of inheritance.

291R. Veterinary Medicine Seminar. (0.5:1:0 ea.) F
Preview into veterinary medicine as a profession. Application procedure and preparation for veterinary school.

329. Dental School Preparation. (2:1:1) F, W Prerequisite: Biol 229.
Practical experience in the areas of dental anatomy, terminology, teeth carving, and dental operatory techniques.

339. Preview into Medicine. (2:2:0) For sophomore, junior, and transfer students. F, W
Medical education (admission procedures, curriculum), medical specialties in practice, ethics, legal and governmental concerns, health care delivery systems, and related professions.

340. Genetics. (2:2:1) F, W, Su Prerequisite: Biol 220.
Genetic mechanisms, their fundamental nature, interactions, and applications to human affairs. Genetics in quantitative terms. Extensive practice in problem solving.

350. Ecology. (3:3:0) F, W Prerequisite: Biol 120, 220.
Distribution and abundance of organisms and their interactions with the physical and biotic components of the earth.

360. Cell Biology. (3:3:1) F, W Prerequisite: Biol 240.
Fundamentals of cell structure and function with reference to analytical methods used by cell biologists. Practice in designing, executing, and interpreting relevant experiments.

392R. Preveterinary Preceptorship. (1–2:0:Arr. ea.) F, W, Sp, Su
Supervised on-the-job exposure to veterinary medicine under a clinical setting, supplemented with academic assignments.

399R. Academic Internship. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: mentor's consent.
Approved experiential learning.

420. Evolutionary Biology. (2:2:0) F, W Prerequisite: Biol 240, 340.
Intensive examination of evolution as the conceptual cornerstone of biology.

421. Evolutionary Biology Laboratory. (1:0:3) F, W Prerequisite: Biol 240, 340; Biol 420 or concurrent enrollment.
Methodology and evidence used in evolutionary biology: comparative anatomy, DNA and protein techniques, radiometric and non-radiometric dating, fossil data, etc.

429. Clinical Observation for Predental Students. (2:1:3) F, W, Sp Prerequisite: Biol 329.
Experience in local dental offices for junior and senior predental students.

439. Clinical Observation for Premedical Students. (2:1:3) F, W Prerequisite: Biol 339; junior or senior standing and instructor's consent.
Observing with practicing physician and in hospitals.

489R. Senior Library Thesis. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: prospectus approval by Biology Office.
Mentored library study that extensively explores relevant questions determined by an approved faculty mentor.

494R. Mentored Research. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: mentor's consent.

499R. Senior Honors Thesis. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: mentor's consent.
Topic to be cleared with Honors Program and Biology Office.

500-Level Graduate Courses (available to advanced undergraduates)

503. Research Orientation. (1:1:0) F
Introduction to graduate school and research techniques.

Botany and Range Science

See Integrative Biology and Plant and Animal Sciences sections of this catalog.

Bulgarian

See Germanic and Slavic Languages.

Business

See Management, Marriott School of.

Cantonese

See Asian and Near Eastern Languages.

Central American Indian Languages

See Center for Language Studies.

Chemical Engineering

W. Vincent Wilding, Chair
350 CB, (801) 422-2393

College of Engineering Advisement Center
264 CB, (801) 422-4325

Admission to Degree Program

The degree program in the Department of Chemical Engineering carries special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Chemical engineering deals with the development and application of manufacturing processes in which chemical and physical changes of materials are involved. Chemical engineers research and develop new methods to manage energy resources as well as commercial consumer products. They design reliable, cost-effective manufacturing plants and implement air-quality control systems. As problem solvers, chemical engineers work on the leading edge of technology—researching and developing the ideas of today for the designs, systems, and products of tomorrow.

Areas of instruction include heat transfer, fluid dynamics, chemical reaction kinetics, thermodynamics, separation operations, materials science, process control, and plant design. In addition, chemical engineering places strong emphasis on computer skills.

The BS curriculum is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET) and the American Institute of Chemical Engineers.

Educational Objectives

The Chemical Engineering Department has the following educational objectives:

1. Graduate students who are prepared for and committed to lives of faith in Jesus Christ; service to family, church, and community; and lives of learning.
2. Graduate students who have a broad university education and who have developed reasoning skills, effective communication abilities, and an understanding of their role in society and of contemporary issues.
3. Provide an education built on a strong foundation of the fundamentals of engineering, science, and mathematics and an excellent preparation in chemical engineering theory and practice.
4. Graduate students who exemplify professional ethics, have an appreciation for diversity and an ability to work with and contribute to the development of others, and are committed to responsible engineering practice.

These objectives are intended to help develop the following attributes in students graduating from the program:

1. An understanding of the chemical engineering major and profession.
2. An understanding of fundamental principles of mathematics and science.
3. An understanding of chemical engineering fundamentals.
4. Practical experience with chemical process equipment, chemical handling, chemical analysis, and process instrumentation.
5. An ability to use modern engineering tools necessary for engineering practice.
6. An ability to define and solve engineering problems.
7. A dedication to and a working knowledge of safety and environmental aspects of engineering practice.
8. An ability to communicate ideas effectively in both oral and written form.
9. An ability to work effectively with others to accomplish common goals.
10. An ability to apply chemical engineering fundamentals to solve open-ended problems and to design process units and systems of process units including multiple operations.
11. An appreciation for and a commitment to ethical and professional responsibilities.
12. An appreciation for and a commitment to the continuing pursuit of excellence and the full realization of human potential.

Career Opportunities

The combination of knowledge about process engineering, math, and chemistry obtained in the chemical engineering curriculum is a versatile preparation that opens a wide variety of opportunities to graduates. This versatility is one reason why chemical engineers have traditionally been among the highest paid professionals in the engineering and science disciplines.

Chemical engineers make a significant difference in our quality of life. Some develop clean, new energy sources to power society. Some develop and produce fertilizers and other agricultural chemicals to feed mankind. Virtually all pharmaceuticals are produced by chemical engineers to enhance the life of millions. Others study and produce biomedical devices and artificial organs. Still others are involved in development and production of new materials for use in new high-tech products.

Chemical engineers produce chemicals ranging in use from cleaning products to medicines and from man-made fibers for clothing and textiles to plastics for construction and consumer goods. Another large employer of chemical engineers is the semiconductor industry. In work that involves significant knowledge of chemistry and related processes, chemical engineers assist in the design and manufacture of semiconductor chips and circuit boards. The petroleum industry also employs chemical engineers, requiring their expertise for the discovery, production, and refining of petro-chemicals, including fuels, chemicals, and oils.

Many chemical engineers are employed in environmentally related positions, working on ways to improve air and water quality, to reduce acid rain and smog, and to recycle and reduce garbage. Additionally, chemical engineers are employed by universities as teachers and researchers and by government agencies to provide answers for energy, environmental, and defense concerns. Chemical engineers also train to work in the medical, business, and legal professions.

Though chemical engineering career opportunities are diverse, job functions can be categorized more easily. Chemical engineers are usually involved in research, design, development, production, technical sales, or management.

In research, they develop new ideas, new products, and new ways to produce existing products more economically and with less environmental impact.

In design, they create the processes that convert raw materials into finished products with emphasis on efficiency, safety, consumer needs, and environmental protection.

The development engineer improves existing processes and technology to better meet changing needs.

Production engineering involves supervision, quality control, and testing of production processes and operations.

Management and technical sales involve decision making with regard to consumer needs and technical capabilities.

Chemical engineers are creative problem solvers. Their careers are rewarding not only from an intellectual and financial view, but also from a personal perspective. Affecting the lives of millions, their solutions provide a better lifestyle for mankind.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course)	0–3.0 hours
(or Math ACT score of at least 22)	
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Chemical Engineering

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Chemical Engineering
PhD Chemical Engineering

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

The Chemical Engineering Department offers a professional program leading to the bachelor of science degree. The first two years of this program are considered to be preprofessional and permit unrestricted enrollment for any student who qualifies for admission to the university. The remaining two years are considered to constitute the professional program.

Any student who is admitted to the university may choose this program as a possible major. All students are urged to declare their intention to major in the department upon first entry to the university or as soon thereafter as possible by contacting the college advisement center (264 CB). Students electing to major in this program must successfully complete the minimum preprofessional program requirements before applying for acceptance into the department professional program.

Transfer Students. Provisions have been made so that a qualified student transferring from a junior college or from another university, college, or department, who has completed the equivalent of the first two years of the academic program, can complete the BS degree requirements in another two years. Contact the department at the earliest date possible so that any variations can be accommodated with minimum loss of time.

Integrated Master's Program. At the end of the sophomore year or during the junior year, a student who desires to obtain a master's degree in chemical engineering may elect to enter the integrated master's program. The purpose of this program is to afford greater flexibility in scheduling course work than is normally available through the traditional BS degree followed by MS degree program. In this program students may work toward both the bachelor's and master's degrees simultaneously, either receiving the BS degree before or at the same time as the MS degree. At the end of the sophomore year students must have a cumulative GPA of 3.5 or more. All credit to be counted toward the master's degree must carry a cumulative GPA of 3.0 or better.

Before completing the final 30 hours of undergraduate course work, students should submit a formal application for admission to the Office of Graduate Studies. Additional details may be obtained from the college advisement center.

Professional Registration. The Chemical Engineering Department encourages graduates to become registered professional engineers. General qualifications for becoming registered are explained in the College of Engineering and Technology section of this catalog. Some states require this status for consulting and practice in the private sector. Successful completion of the basic chemical engineering program outline prepares graduates to pass the Fundamentals of Engineering (FE) examination. Students who wish to become registered as professional engineers are also advised to talk to their advisor about developing their own professional engineering option, which may include additional FE preparation courses.

BS Chemical Engineering (101.5–103.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or department office for information regarding requirements for admission to this major.

Major Requirements

1. Students are strongly encouraged to consult with the department about their course scheduling.
2. Complete the following preprofessional courses:
   Chem 111, 112 (or 105, 106, 107).
   ChEn 170, 263, 273, 291.
   Math 112, 113, 302, 303.
   Phscs 121, 220.
3. Complete the following professional courses:
   ChEn 311, 373, 374, 376, 378, 391, 436, 451, 475, 476, 477, 478.
4. Complete the following supporting courses:
   Biol 100.
   Chem 351, 352, 461.
   Engl 316.
   Stat 361.
   And complete one course from the following:
   Econ 110.
   EngT 200.

5. Complete technical electives (12 hours minimum) satisfying the following requirements:
   a. Complete 2 hours of chemistry laboratory (Chem 213, 353, or 464).
   b. Complete 6 hours of advanced (300-level or above) engineering course work from one of the following departments: Chemical Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Mechanical Engineering, or the School of Technology.
   c. Complete 4 hours of advanced (300-level or above) course work from an engineering, math, science, or business department. Only 1 hour of Chem 497 is acceptable. No more than 2 hours of ChEn 498R (only 1 hour if Chem 497R is taken) may be applied to the program. Phscs 281 is approved for this requirement.

*Hours include courses that may fulfill GE or university requirements.

Chemical Engineering (ChEn)

Undergraduate Courses

170. Introduction to Chemical Engineering. (2:2:0) F, W
Principles of chemical processes and analyses with spreadsheets and graphics. Applying chemical engineering to current problems.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: consent of both department chair and cooperative education coordinator.
Work experience evaluated by supervisor and posted on student's transcript.

263. Problem-Solving Techniques for Chemical Engineers. (2:2:0) F, Sp Prerequisite: ChEn 170 or concurrent enrollment; Math 113.
Use of spreadsheets, advanced equation-solving packages, and structured languages to solve engineering problems. Introduction to chemical process principles. College Lecture attendance required.

273. Chemical Process Principles. (3:3:0) W, Sp Prerequisite: ChEn 170 or equivalent or concurrent enrollment; ChEn 263 or equivalent; Chem 106 or 112; concurrent enrollment in Phscs 121, Math 113.
Material and energy balances. College Lecture attendance required.

291. Preprofessional Seminar. (.5:1:0) F, W
Presentations by faculty, advisors, and industrial representatives. College Lecture attendance required.

310. Introduction to Fossil Fuels and Combustion. (3:3:0) F
Energy sources, demands, and processes; costs and environmental studies; case studies of various fossil fuel and alternate energy sources; introduction to combustion and flames.

311. Chemical Engineering and Society. (3:3:0) F Prerequisite: ChEn 273.
Responsibility of chemical engineers when interacting with society relative to safety, environment, and ethics.

373. Chemical Engineering Thermodynamics. (3:3:0) W Prerequisite: ChEn 273, 311; Chem 461.
First and second laws of thermodynamics as applied to behavior of real fluids; physical and chemical equilibrium. College Lecture attendance required.

374. Fluid Mechanics. (3:3:0) F Prerequisite: Math 212, ChEn 273, 311.
Basic mass, momentum, and energy relations of fluid flow; design of fluid-handling systems and equipment. College Lecture attendance required.

376. Heat and Mass Transfer. (3:3:0) W Prerequisite: ChEn 311, 374.
Heat and mass transfer, including conduction, convection, radiation, diffusion; steady and unsteady state systems; transport analogies; design applications.

378. Science of Engineering Materials. (3:3:0) F Prerequisite: Chem 351 or instructor's consent.
Fundamental principles of solid materials and their properties and behavior in engineering applications of metals, polymers, ceramics, and glasses.

381. Introduction to Semiconductor Processing. (3:2:1) F Prerequisite: Chem 105 or 111 or equivalent; Math 334 or equivalent; chemical engineering junior class status.
Unit operations related to silicon-based semiconductor processing, including substrate preparation, photolithography, doping, etching, and thin film formation. Lab included.

391. Chemical Engineering Career Skills. (1:1:0) F, W Prerequisite: admission to professional program.
Professional, communication, and lifelong learning skills. Field trip to chemical process facility.

411. Air Pollution Control. (3:3:0) W alt yr. Prerequisite: instructor's consent. Recommended: junior standing or higher.
Causes and effects of air pollution; standards, criteria, and legislation; dispersion, meteorology, and atmospheric chemistry. Includes design project and use of impact statements.

412. Introductory Nuclear Engineering. (3:3:0) W Prerequisite: Math 334; Chem 106 or 112.
Principles and application of nuclear reactor design.

436. Process Control and Dynamics. (3:3:0) F Prerequisite: Math 334, ChEn 376, 478.
Process systems, associated control systems, and instrumentation. Use of Laplace transforms and complex variables.

451. Chemical Engineering Plant Design and Process Synthesis. (4:4:0) W Prerequisite: ChEn 391, 436, 476, 478.
Design of chemical engineering machinery; plants and/or processes requiring application of unit operations; chemical process principles; economic analysis. Synthesis and optimization of chemical processes. College Lecture attendance required.

475. Unit Operations Laboratory 1. (2:1:6) F, Sp Prerequisite: ChEn 374, 376, 391; Engl 316; Stat 361.
Experimental verification of unit operations design principles; data collection and reduction; report preparation.

476. Separations. (3:3:0) F Prerequisite: ChEn 373, 376.
Stage operations, distillation, extraction, and absorption; design applications. College Lecture attendance required.

477. Unit Operations Laboratory 2. (2:1:6) W, Sp Prerequisite: ChEn 476, 478. Recommended: ChEn 391, 476, 478; Engl 316; Stat 361.
Experimental verification of unit operations design principles; data collection and reduction; report preparation.

478. Chemical Reaction Engineering. (3:3:0) W Prerequisite: ChEn 311, Chem 461.
Fundamental principles and equations of chemical kinetics and reactor design.

491. Senior Seminar. (1:1:0) F, W
Technical presentations by students. One semester required of all majors in the senior year.

493R. Special Topics—Undergraduate. (1–3:3:Arr. ea.) Prerequisite: instructor's consent.
Classroom study based on student and faculty interest.

498R. Undergraduate Research. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: faculty committee approval.
Final report required; 2 hours maximum allowed for degree credit.

500-Level Graduate Courses (available to advanced undergraduates)

500. Creative Skills in Chemical Engineering. (1:1:0) F
Application of creativity and technical knowledge from prior course work to solution of relevant, open-ended problems.

501. Directed Graduate Studies. (2:2:0) W Prerequisite: ChEn 531, 533, 535.
Guided preparation for department's comprehensive exams and for formulation of research prospectus.

510. Principles of Reservoir Engineering. (3:3:0) On dem. Prerequisite: ChEn 373.
Reservoir and hydrocarbon classification; fluid flow; primary oil and gas recovery mechanisms; enhanced oil recovery.

511. Environmental Engineering for Chemical Engineers. (3:3:0) W alt. yr. Prerequisite: ChEn 273 or equivalent.
Overview of environmental engineering for chemical engineers. Topics include environmental legislation, toxicology, process design for pollution prevention/waste minimization, hazardous waste treatment and disposal, and remediation.

518. Biomedical Engineering Principles. (3:3:0) W Prerequisite: ChEn 376, Math 212.
Application of chemical engineering principles to model physiologic systems and to solve medical problems.

528. Industrial Catalytic Processes. (2:2:0) Sp alt. yr. on dem. Prerequisite: Chem 106 or 111; 351; ChEn 378; or equivalents. Recommended: ChEn 478.
Fundamentals of catalytic chemistry and materials; applications to important industrial catalytic processes. Includes catalyst materials and preparation, catalyst characterization, fixed-bed reactor design, and catalyst deactivation.

531. Thermodynamics of Multicomponent Systems. (3:3:0) F Prerequisite: ChEn 373 or 461.
Fundamental concepts and applications in first and second laws, equilibrium and stability, phase equilibrium, and homogeneous and heterogeneous chemical equilibrium.

533. Transport Phenomena. (3:3:0) F Prerequisite: ChEn 476 or concurrent enrollment. Recommended: Math 323.
Transport mechanisms and coefficients and fundamental field equations for momentum, heat, and mass transport, with application to system design.

534. Advanced Separations. (3:3:0) On dem. Prerequisite: ChEn 533, Math 334.
General theory of differential and stagewise diffusional and separation operations, multicomponent distillation, extraction, and absorption; applying this theory to solution of complex problems, including column design and instrumentation.

535. Kinetics and Catalysis. (3:3:0) F Prerequisite: ChEn 478.
Theories and principles of chemical kinetics, including heterogeneous catalysis and reactor design.

541. Computer Design Methods. (3:3:0) Alt. yr. Prerequisite: Math 311, ChEn 376; or equivalents.
Computer-aided design and numerical methods of chemical engineering processes.

578. Polymer Science and Engineering. (3:3:0) W Prerequisite: Introductory materials engineering course.
Fundamentals of polymer chemistry and physics and their implications in engineering applications. Topics include polymerization chemistry, structure-property relationships, polymer physics, and transport properties.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Chemical Engineering Faculty

Professors
Bartholomew, Calvin H. (1973) BES, Brigham Young U., 1968; MS, PhD, Stanford U., 1970, 1972.
Baxter, Larry L. (2000) BS, PhD, Brigham Young U., 1983, 1989.
Beckstead, Merrill W. (1977) BS, PhD, U. of Utah, 1961, 1965.
Fletcher, Thomas H. (1991) BS, MS, PhD, Brigham Young U., 1979, 1980, 1983.
Harb, John N. (1988) BS, Brigham Young U., 1983; PhD, U. of Illinois, 1988.
Oscarson, John L. (1974) BES, Brigham Young U., 1968; MS, PhD, U. of Michigan, 1972, 1985.
Pitt, William G. (1987) BS, Brigham Young U., 1983; PhD, U. of Wisconsin, Madison, 1987.
Rowley, Richard L. (1984) BS, Brigham Young U., 1974; PhD, Michigan State U., 1978.
Solen, Kenneth A. (1976) BS, U. of California, Berkeley, 1968; MS, PhD, U. of Wisconsin, Madison, 1972, 1974.
Terry, Ronald E. (1987) BS, Oregon State U., 1971; PhD, Brigham Young U., 1976.
Wilding, W. Vincent (1994) BS, Brigham Young U., 1981; PhD, Rice U., 1985.

Associate Professor
Hecker, William C. (1982) BS, MS, Brigham Young U., 1974, 1975; PhD, U. of California, Berkeley, 1982.

Assistant Professor
Wheeler, Dean R. (2002) BS, Brigham Young U., 1996; PhD, U. of California, Berkeley, 2002.

Emeriti
Barker, Dee H. (1959) BS, PhD, U. of Utah, 1948, 1951.
Hanks, Richard W. (1963) BES, Yale U., 1957; PhD, U. of Utah, 1960.
Hedman, Paul O. (1977) BS, U. of Utah, 1957; PhD, Brigham Young U., 1973.
Pope, Bill J. (1958) BS, U. of Utah, 1947; MS, PhD, U. of Washington, 1948, 1959.
Smoot, L. Douglas (1967) BS, BES, Brigham Young U., 1957, 1957; MS, PhD, U. of Washington, 1958, 1960.

Chemistry and Biochemistry

Francis R. Nordmeyer, Chair
C-104 BNSN, (801) 422-6269

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

All degree programs in the Department of Chemistry and Biochemistry are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Chemistry is the study of matter, the changes undergone by matter, and the laws that govern the changes. Chemists study atoms as well as the structures and reactions of molecules. They also work to develop simplifying models (theories) that permit the correlation and explanation of observations about matter. Chemical principles are fundamental to the understanding of subjects ranging from the molecular basis of biology to the structure of rocks and minerals. Chemistry is an essential foundation in engineering disciplines, especially in chemical engineering, the electronics field, energy and environmental science, geology, pharmacy and medicine, and in virtually all manufacturing areas.

Chemistry is an active science that is vital to human existence. Energy needs, environmental concerns, and requirements for new materials all involve major contributions from chemists. Examples of the diverse areas of interest to chemists include regulation of protein synthesis, signal transduction at the cellular level and proteomics (biochemistry), design and synthesis of medicinal compounds (organic chemistry), design and synthesis of new molecular structures and materials (inorganic chemistry), spectroscopic study of energy transfer and molecular structures (physical chemistry), and analysis of medicinal compounds, biological materials, and contaminants or trace elements found in the environment (analytical chemistry).

Chemistry involves more than test tubes and beakers. It includes working with a variety of equipment and instruments such as mass spectrometers, calorimeters, chromatographs, ultracentrifuges, lasers, X-ray diffractometers, and nuclear magnetic resonance spectrometers.

Career Opportunities

Graduates in chemistry obtain positions in virtually every industry, and those who have imagination and intellectual curiosity are in particular demand. Chemistry is also an excellent preprofessional course of study for those interested in medicine, dentistry, law, and business. The chemistry curriculum is both rigorous and intellectually rewarding.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Chemistry
BA	Chemistry Education
BS	Chemistry
BS	Biochemistry
Minors	Chemistry
	Chemistry Education

Students should see the department office for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Chemistry
MS	Biochemistry
PhD	Chemistry
PhD	Biochemistry

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

Required High School Preparation

1. It is recommended that a student complete the following courses in high school:

   3 units of English
   2 units of physical science, chemistry, and physics.
   4 units of mathematics, consisting of 2.5 units of algebra, 1 unit of geometry, and 0.5 unit of trigonometry. This should qualify students to begin college mathematics with Math 112, analytic geometry and calculus.

   Because mathematics provides the foundation for all work in the physical and mathematical sciences, particular attention is paid to high school preparation in this subject.

To decide which mathematics course should be taken first, contact the Mathematics Department, 292 TMCB, and request a mathematics placement test.

2. All students, especially freshmen and those transferring, should contact the department between March and August each year for advisement about efficient course scheduling and opportunities for student employment.

Scholarships

Kenneth W. Brighton, Carl J. Christensen, H. Tracy Hall, and Ida Tanner Hamblin scholarships are available to qualified chemistry majors.

BA Chemistry (57.5 hours*)

This degree provides an excellent preparation for those individuals in preprofessional programs (e.g., medicine, dentistry, master of business administration, or law), and it also provides strong career alternatives in chemistry.

Major Requirements

1. No more than 3 hours of D credit is allowed in major courses.
2. The final 10 hours of required chemistry credit must be taken at BYU.
3. Complete the following:
   Chem 111H, 112, 213, 227, 351M, 352M, 354, 391, 461, 462, 464, 465, 501.
4. Complete the following:
   Math 112, 113, 343.
   Phscs 121, 123, 150, 220.
5. After consulting with an advisor, complete 3 hours from the following:
   Chem 455, 481M, 496R, 497R, 499R, 514, 518, 521, 523, 552, 553, 561, 563, 564, 565, 569, 594R, 596R.

Recommended Courses

CS 142.
Math 214.
Phscs 250.
RelC 491, 492.

Either PDBio 205
Or Biol 100.

Note: Supporting courses suggested by most medical and dental schools are found in the Preprofessional Programs section of this catalog. The more rigorous chemistry, mathematics, and physics courses required for the chemistry majors will satisfy the minimum requirements listed there. Elective courses in biochemistry and in biological science are especially pertinent to these preprofessional programs.

*Hours include courses that may fulfill GE or university requirements.

BA Chemistry Education (79.5–82.5 hours*, including licensure hours)

This degree provides preparation for professional high school teaching. High school chemistry teachers will find opportunities available and will know the satisfaction of guiding good students into essential and rewarding careers. Students should work closely with both the Department of Chemistry and Biochemistry and the David O. McKay School of Education Advisement and Certification Office.

Major Requirements

1. No more than 3 hours of D credit is allowed in major courses.
2. The final 10 hours of required chemistry credit must be taken at BYU.
3. Contact the Education Advisement and Certification Office for entrance requirements into the licensure program.
4. A teaching minor is not required for licensure. However, it is strongly recommended.
5. Complete the following:
   Chem 111H, 112, 213, 227, 351M, 391, 461, 501.
6. Complete one course from the following:
   Chem 352M, 462.
7. Complete one of the following options:
   a. Biol 100.
   b. Biol 120 and 220.
   c. Chem 481M.
   d. Math 343.
   e. PDBio 205.

   Note: Chem 352 is prerequisite to 481M.
8. Complete the following:
   Math 112, 113.
   Phscs 121, 123.
9. Complete one of the following four options:
   a. Biol 150.
   b. Geol 111.
   c. Phscs 150, 220.
   d. Stat 421.
10. Complete 2 hours from the following:
    Chem 354; 464 and 465; 497R.
11. After consulting with an advisor, complete 3 hours from the following:
    Chem 354, 464, 465, 481M, 482, 496R, 497R, 499R, 514, 521, 523, 552, 553, 561, 563, 564, 565, 569, 594R, 596R.
    Phil 423.
12. Complete the Professional Education Component (28–29 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

BS Chemistry (74.5 hours*)

This is the preferred degree for chemistry majors (approved by the American Chemical Society) and those who desire an advanced degree (MS, PhD) in chemistry.

Major Requirements

1. No more than 3 hours of D credit is allowed in major courses.
2. The final 10 hours of required chemistry credit must be taken at BYU.
3. Complete the following:
   Chem 111H, 112, 213, 227, 351M, 352M, 354, 391, 455, 461, 462, 464, 465, 481M, 501, 514, 521, 523.
4. Complete 1 hour of the following:
   Chem 594R.
5. Complete the following:
   Math 112, 113, 343.
   Phscs 121, 123, 150, 220.
6. Complete one of the following options:
   Either Biol 100
   Or PDBio 205.
7. After consulting with an advisor, complete 3 hours from the following:
   Chem 482, 496R, 497R, 499R, 518, 552, 553, 561, 563, 564, 565, 569, 584, 596R.

Note: With approval, certain other 300-level and above courses in the allied fields of physics, statistics, engineering, and biology may be taken to satisfy this requirement. Because of the importance of biochemistry, polymer chemistry, and materials science, courses in those areas should receive serious consideration by chemistry students.

Recommended Courses

CS 142.
Math 214.
Phscs 250.
RelC 491, 492.

Note: Elective courses, beyond the requirements above, should be selected in consultation with an advisor. The following should be given consideration: advanced chemistry, foreign languages (especially French, German, Japanese, and Russian), biological sciences, computer science, engineering, mathematics, physics, statistics.

*Hours include courses that may fulfill GE or university requirements.

BS Biochemistry (74.5 hours*)

Students preparing for health-related fields (medicine, dentistry, veterinary medicine) or those who desire an advanced degree (MS, PhD) in biochemistry, biology, or the health sciences receive excellent preparation from this degree program.

Major Requirements

1. No more than 3 hours of D credit is allowed in major courses.
2. The final 10 hours of required chemistry credit must be taken at BYU.
3. Complete the following:
   Chem 111H, 112, 213, 227, 351M, 352M, 354, 391, 461, 464, 465, 468, 481M, 482, 501, 584, 586.
4. Complete 1 hour of the following:
   Chem 594R (two enrollments).
5. Complete the following:
   Biol 372.
   Math 112, 113.
   Phscs 121, 123, 150, 220.
   Stat 221.
6. Complete one of the following options:
   Either Biol 100
   Or PDBio 205.
7. After consulting with an advisor, complete 3 hours from the following:
   Chem 455, 489, 496R, 497R, 499R, 514, 518, 521, 523, 552, 553, 561, 563, 564, 565, 569, 581, 583, 596R.

Note: With prior approval, many 400- and 500-level courses in botany, microbiology, and zoology will fill this requirement.

Recommended Courses

Biol 360.
CS 142.
Math 214, 343.
RelC 491, 492.

Note: Supporting courses suggested by most medical and dental schools are found in the Preprofessional Programs section of this catalog. The more rigorous chemistry, mathematics, and physics courses required for the chemistry majors will satisfy the minimum requirements listed there. Elective courses in biochemistry and in biological science are especially pertinent to these preprofessional programs.

*Hours include courses that may fulfill GE or university requirements.

Minor Chemistry (18–20 hours*)

Minor Requirements

1. Complete one of the following options:
   Either Chem 111H, 112, 213
   Or Chem 105, 106, 107, 223.
2. Complete one of the following options:
   Either Chem 351, 352
   And Chem 353 (2 hours) or 354
   Or Chem 461, 462, 464, 465.

Note: When all of the chemistry credit required for a minor is transferred from another school, at least one course in chemistry must be taken at BYU with a grade of C or better—or the student may request to take a standardized national exam covering advanced material required for the minor. Chemistry programs at some schools have been evaluated, and their credit is acceptable for the minor. No more than one course with a grade in the D range will be allowed.

*Hours include courses that may fulfill GE or university requirements.

Minor Chemistry Education (16–18 hours*)

Minor Requirements

1. Complete one of the following options:
   Either Chem 111H, 112, 213, 351
   Or Chem 105, 106, 107, 223, 351.
2. Complete one course from the following:
   Chem 461, 462, 468.

Note: When all of the chemistry credit required for a minor is transferred from another school, at least one course in chemistry must be taken at BYU with a grade of C or better—or the student may request to take a standardized national exam covering advanced material required for the minor. Chemistry programs at some schools have been evaluated, and their credit is acceptable for the minor. No more than one course with a grade in the D range will be allowed.

*Hours include courses that may fulfill GE or university requirements.

Chemistry and Biochemistry (Chem)

Undergraduate Courses

100. Elementary College Chemistry. (3:3:0) For nonscience and nonmedical majors. On dem. Independent Study also. Recommended: PhyS 100 or equivalent.
Structure of matter and the chemical consequences of that structure.

101. Introductory General Chemistry. (3:3:0) F, W, Sp, Su Prerequisite: Math 97 or equivalent.
Atomic and molecular structure, periodic relationships, states of matter, chemical reactions and stoichiometry, acids and bases. Primarily for nonscience majors who require a broad introduction to general chemistry.

103. Introductory Chemistry Laboratory. (1:0:3) W Prerequisite: Chem 101 or equivalent.
Introductory laboratory techniques required for simple classical experiments in chemistry.

105. General College Chemistry. (4:5:0) F, W, Sp, Su Prerequisite: Math 110 (or equivalent) or concurrent enrollment.
Atomic and molecular structure including bonding and periodic properties of the elements; reaction energectics, electrochemistry, acids and bases, inorganic and organic chemistry. Primarily for students in engineering and biological sciences. Three lectures and two recitation sections per week.

106. General College Chemistry. (3:4:0) F, W, Sp, Su Prerequisite: Chem 105 or equivalent.
Continuation of Chem 105 but covering most of the topics in a more quantitative way. Detailed treatment of thermodynamics and equilibria. Three lectures and one recitation section per week.

107. General College Chemistry Laboratory. (1:0:3) F, W, Sp, Su Prerequisite: Chem 106 or concurrent enrollment.
Chemical properties, chemical reactions, collection and interpretion of data, preparation of reports. Required for most students needing one year of general chemistry.

111. Principles of Chemistry. (3:3:1) F Prerequisite: Math 110 (or equivalent) or concurrent enrollment. Strongly recommended: high school chemistry, physics, and introductory calculus or concurrent enrollment in Math 112.
Stoichiometry, kinetic-molecular theory, thermodynamics, states of matter, solutions and equilibria, electrochemistry, structure and bonding, chemical reactions, kinetics. Tutorial included.

111H. Honors Principles of Chemistry. (4:3:4) For chemistry majors. F Prerequisite: Math 110 (or equivalent) or concurrent enrollment. Strongly recommended: high school chemistry, physics, and introductory calculus or concurrent enrollment in Math 112.
Stoichiometry, kinetic-molecular theory, thermodynamics, states of matter, solutions and equilibria, electrochemistry, structure and bonding, chemical reactions, kinetics. Laboratory and tutorial included.

112. Principles of Chemistry. (3:3:2) W Prerequisite: Chem 111, 111H, or equivalent.
Continuation of Chem 111 or 111H. Tutorial included.

152. Introductory Organic Chemistry. (2:2:0) F, W, Sp, Su Prerequisite: Chem 101 or adequate high school preparation in chemistry.
Principles of structure and reactivity, properties and reactions of compound classes, syntheses.

213. Introductory Inorganic Laboratory. (3:1:6) F, W Prerequisite: Chem 106 or concurrent enrollment in 112.
Principles and techniques of making precise chemical measurements. Synthesis, properties, and identification of inorganic compounds.

223. Quantitative and Qualitative Analysis. (4:2:6) F, Sp Prerequisite: Chem 106 or equivalent.
Principles of chemical equilibrium, quantitative chemical measurements, and qualitative detection of selected chemical species. Primarily for majors in molecular biology and the life sciences.

227. Introductory Analytical Chemistry. (4:2:6) F, Sp Prerequisite: Chem 213.
Principles of quantitative analysis, introductory instrumental methods, and computer applications to chemical analysis.

281. Introductory Biochemistry. (3:3:0) F, W, Sp, Su Prerequisite: Chem 152 or equivalent.
Relationships between chemical structure and physiological function, overall correlation of metabolism. Students with more extensive preparation should register for Chem 481.

351. Organic Chemistry. (3:3:0) F, W, Sp Prerequisite: Chem 105, 111, 111H, or equivalent.
Chemical bonds and molecular structure, conformation and configuration, functional classes, reactions and mechanisms, syntheses. Primarily for majors in chemistry, chemical engineering, and the biological sciences.

351M. Organic Chemistry—Majors. (3:3:0) F Prerequisite: Chem 105, 111, 111H, or equivalent.
Chemical bonds and molecular structure, conformation and configuration, functional classes, reactions and mechanisms, syntheses.

352. Organic Chemistry. (3:3:0) F, W, Sp, Su Prerequisite: Chem 351 or equivalent.
Continuation of Chem 351.

352M. Organic Chemistry—Majors. (3:3:0) W Prerequisite: Chem 351M or equivalent.
Continuation of Chem 351M.

353. Organic Chemistry Laboratory— Nonmajors. (1–2:0:6) For predentistry, premedicine, and other majors who do not intend to take Chem 455. F, W, Sp, Su Prerequisite: Chem 352 or concurrent enrollment.
Physical and chemical properties, isolation and purification, characterization, syntheses.

354. Organic Chemistry Laboratory— Majors. (2:0:6) F, W, Sp Prerequisite: Chem 352 or concurrent enrollment.
Physical and chemical properties, manipulative skills, isolation and purification, characterization and identification, syntheses.

391. Technical Writing Using Chemical Literature. (3:3:0) F, W Prerequisite: Chem 227, 352.
Intensive technical writing course based on chemical literature sources. Fulfills GE Advanced Writing requirement.

455. Synthesis and Qualitative Organic Analysis. (3:1:6) For chemistry and other science majors. F Prerequisite: Chem 354; 501 or concurrent enrollment.
Laboratory course emphasizing isolation, purification, and characterization of major and minor products from selected syntheses.

461. Physical Chemistry. (3:3:0) F, W Prerequisite: Chem 227 or ChEn 263 or equivalent; Phscs 123 or concurrent enrollment. Recommended: Math 343.
States of matter, thermodynamics and equilibria, kinetic-molecular theory, quantum mechanics, group theory, atomic and molecular structure, spectroscopy.

462. Physical Chemistry. (3:3:0) W, Sp Prerequisite: Chem 461.
Continuation of Chem 461.

464. Physical Chemistry Laboratory. (1:1:Arr.) F, W Prerequisite: Chem 227; 461, 501, or concurrent enrollment.
Precise data collection for classical experiments, computer manipulation of data, report preparation.

465. Physical Chemistry Laboratory 2. (1:1:0) F, W Prerequisite: Chem 462, 464; or concurrent enrollment.
Continuation of Chem 464.

468. Biophysical Chemistry. (3:3:0) For biochemistry (BS) majors and those interested in the health professions or biochemistry. W Prerequisite: Chem 461; 481 or concurrent enrollment.
Application of physical chemistry to biological systems. Thermodynamics, statistical mechanics, quantum mechanics, biophysical experimental techniques.

481. Biochemistry 1. (3:3:0) For chemistry majors and students in biological sciences who contemplate pursuing advanced degrees, including medicine. F, W, Sp Prerequisite: Chem 352; PDBio 205 or Biol 100 or equivalent.
First-semester biochemistry. Molecular components of cells, chemical structure and function, enzymes, metabolic transformations, photosynthesis.

481M. Biochemistry 1—Major. (3:3:0) For chemistry and biochemistry majors only. F Prerequisite: Chem 352; PDBio 205 or Biol 100 or equivalent.
First-semester biochemistry. Molecular components of cells, chemical structure and function, enzymes, metabolic transformations, photosynthesis.

482. Biochemistry 2. (3:3:0) W, Sp Prerequisite: Chem 481 or equivalent.
Second-semester biochemistry. Nucleic acid biochemistry and molecular biology: nucleotide metabolism, chromosome and chromatin structure, DNA structure and replication, RNA transcription and gene expression, protein synthesis and regulation, eukaryotic gene systems, signal transduction.

489. Structural Biochemistry. (3:3:0) On dem. Prerequisite: Chem 481 or equivalent.
Molecular structures of proteins, RNA and DNA as determinants of biological function. Topics include thermodynamics of folding and binding, structural determination, spectroscopy, modeling, protein recognition.

496R. Academic Internship: Chemistry and Biochemistry. (1–6:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent; Chem 501 or concurrent enrollment or special safety training.
Research experience in an industrial, academic, or government laboratory in collaboration with a BYU faculty colleague/supervisor.

497R. Undergraduate Special Problems. (1–6:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent and Chem 501 or concurrent enrollment or special safety training.
Undergraduate research experience .

499R. Honors Thesis. (1–6:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent and Chem 501 or concurrent enrollment or special safety training.

500-Level Graduate Courses (available to advanced undergraduates)

501. Chemical Handling and Safe Laboratory Practices. (0.5:0.5:0) F, Sp
Survey of appropriate methods in handling hazardous materials and disposing of waste; legal rights and requirements; safety in chemistry laboratory work.

514. Inorganic Chemistry. (3:3:0) F Prerequisite: Chem 461; 462 or 468.
In-depth treatment of theoretical concepts in inorganic chemistry and the descriptive chemistry of some of the elements.

518. Inorganic Synthesis. (2:0:6) On dem. Prerequisite: Chem 501 or concurrent enrollment; Chem 514.
Syntheses that demonstrate a variety of techniques and a range of inorganic materials.

521. Instrumental Analysis Lecture. (2:2:0) F Prerequisite: Chem 464 or equivalent; Chem 501 or concurrent enrollment.
Modern instrumental methods and basic principles of instrumentation.

523. Instrumental Analysis Laboratory. (2:0:6) W Prerequisite: Chem 464 or equivalent; Chem 521.
Continuation of Chem 521. Laboratory experience with modern analytical instrumentation.

552. Advanced Organic Chemistry. (3:3:0) F Prerequisite: Chem 351, 352, 461, 462.
Physical aspects of organic chemistry; mechanisms, reaction intermediates, bonding, stereochemical and stereoelectronic effects, molecular orbital theory, Lewis acidity and basicity.

553. Advanced Organic Chemistry. (3:3:0) W Prerequisite: Chem 351, 352.
Synthetic aspects of organic chemistry; oxidations, reductions, concerted reactions, stereoselectivity, synthetic equivalents, protecting groups. Examples of natural product total synthesis.

561. Chemical Thermodynamics. (3:3:0) On dem. Prerequisite: Chem 461, 462.
Development of the principles of chemical thermodynamics, including laws, pure materials, mixtures, equilibria, and elementary statistical mechanics.

563. Reaction Kinetics. (3:3:0) W alt. yr. Prerequisite: Chem 461, 462.
Theoretical aspects of chemical kinetics in the gas phase and in solution. Rates and mechanisms in solution, rapid reactions, and other topics.

564. Nuclear Chemistry and Radiochemistry. (2–3:3:0) On dem. Prerequisite: Chem 461, 462.
Introduction to nuclear structure, radioactivity, nuclear spectroscopy, and nuclear reactions, emphasizing applications in chemistry.

565. Introduction to Quantum Chemistry. (3:3:0) F Prerequisite: Chem 461, 462.
Introduction to physical and mathematical aspects of quantum theory, emphasizing application of the Schrodinger wave equation to chemical systems.

569. Fundamentals of Spectroscopy. (3:3:0) W alt. yr. Prerequisite: Chem 461; 462 or 468; Chem 523 or equivalent.
Atomic and molecular spectroscopy and application of group theoretical concepts. Types of experiments and interpretation of data.

581. Advanced Biochemical Methodology 1. (3:3:0) F Prerequisite: Chem 482 or equivalent.
First of two required courses for biochemistry graduate students. Physical methods used in biochemical research, including centrifugation, structural determinations, and use of radioactivity and spectroscopy.

583. Advanced Biochemical Methodology 2. (3:3:0) W Prerequisite: Chem 482 or equivalent.
Second of two required courses for biochemistry graduate students. Molecular biological methods used in biochemistry, including immunotechniques, bioinformatics, and selected recombinant DNA techniques.

584. Biochemistry Laboratory/Proteins. (3:1:2) F, W Prerequisite: Chem 481 or equivalent.
Introduction to current biochemical research procedures including spectrophotometry, chromatography, electrophoresis, and immunological techniques. Protein over-expression; isolation and characterization methods. Enzyme kinetics and protein-ligand interactions. Introduction to bioinformatics.

586. Biochemistry Laboratory/Nucleic Acids. (2:0:2) F, W Prerequisite: Chem 482 or equivalent.
Laboratory course covering major techniques involved in isolation, amplification, and cloning of recombinant DNA as well as isolation, synthesis, translation, and identification of RNA.

594R. General Seminar. (0.5:1:0 ea.) F, W
Research topics presented by faculty and visiting scientists. Required every semester in residence of all senior BS majors and graduate students in chemistry and biochemistry.

596R. Special Topics in Chemistry. (1–3:3:0 ea.) On dem. Prerequisite: Chem 351, 352; Chem 367 or 461.

Graduate Courses

For 600- and 700-level courses, see the 1990–2004 BYU Graduate Catalog.

Chemistry and Biochemistry Faculty

Professors

Boerio-Goates, Juliana (1981) BA, Seton Hill Coll., 1975; MS, PhD, U. of Michigan, 1977, 1979.
Eatough, Delbert J. (1971) BS, PhD, Brigham Young U., 1964, 1967.
Elton, Terry S. (1995) BS, Weber State U., 1981; PhD, Washington State U., 1986.
Farnsworth, Paul B. (1981) BS, Brigham Young U., 1977; PhD, U. of Wisconsin, Madison, 1981.
Fleming, Steven A. (1985) BS, U. of Utah, 1978; PhD, U. of Wisconsin, Madison, 1984.

Goates, Steven R. (1981) BS, Brigham Young U., 1976; MS, PhD, U. of Michigan, 1977, 1981.
Hansen, Lee Duane (1972) BS, PhD, Brigham Young U., 1962, 1965.
Lamb, John D. (1985) BS, PhD, Brigham Young U., 1971, 1978.
Lee, Milton L. (1976) BA, U. of Utah, 1971; PhD, Indiana U., 1975.
Nordmeyer, Francis R. (1972) BA, Wabash Coll., 1961; MA, Wesleyan U., 1964; PhD, Stanford U., 1967.
Owen, Noel L. (1987) BSc, U. of Wales, 1960; PhD, Cambridge U., England, 1964; DSc, U. of Wales, 1983.
Robins, Morris J. (1986) BA, U. of Utah, 1961; PhD, Arizona State U., 1965.
Simmons, Daniel L. (1989) BS, MS, Brigham Young U., 1978, 1980; PhD, U. of Wisconsin, Madison, 1986.
Watt, Gerald D. (1989) BA, PhD, Brigham Young U., 1962, 1966.
Woolley, Earl M. (1970) BS, PhD, Brigham Young U., 1966, 1969.
Zimmerman, S. Scott (1978) BS, Brigham Young U., 1969; PhD, Florida State U., 1973.

Associate Professors
Andrus, Merritt B. (1997) BS, Brigham Young U., 1986; PhD, U. of Utah, 1991.
Burton, Gregory F. (1997) BS, U. of Utah, 1975; MS, Brigham Young U., 1985; PhD, Virginia Commonwealth U., 1989.
Dearden, David V. (1994) BS, Brigham Young U., 1983; PhD, California Inst. of Technology, 1989.
Graves, Steven W. (1998) BA, U. of Utah, 1969; MPhil, PhD, Yale U., 1972, 1978.
Harrison, Roger G. (1995) BS, Utah State U., 1986; PhD, U. of Utah, 1993.
Kuchar, Marvin C. J. (1979) AA, Eastern Arizona Coll., 1955; BS, PhD, Brigham Young U., 1957, 1963.
Peterson, Matt A. (1995) BS, Utah State U., 1987; PhD, U. Of Arizona, 1992.
Savage, Paul B. (1995) BS, Brigham Young U., 1988; PhD, U. of Wisconsin, 1993.
Shirts, Randall B. (1991) BS, Brigham Young U., 1972; AM, PhD, Harvard U., 1978, 1979.
Willardson, Barry M. (1996) BA, Brigham Young U., 1984; PhD, Purdue U., 1990.

Assistant Professors
Asplund, Matthew C. (2000) BS, Brigham Young U., 1992; PhD, U. of California, Berkeley, 1998.
Castle, Steven L. (2002) BS, Brigham Young U., 1995; PhD, The Scripps Research Inst., 2000.
Linford, Matthew R. (2000) BS, Brigham Young U., 1990; PhD, Stanford U., 1996.
Sevy, Eric T. (2001) BS Brigham Young U., 1994; MA, MPhil, PhD, Columbia U., 1995, 1998, 1999.
Thulin, Craig D. (2002) BA, U. of Utah, 1989; PhD, U. of Washington, 1995.
Vollmer-Snorr, Heidi R. (2002) BS, U. of Utah, 1997; DPhil, Oxford U., England, 2000.
Woodfield, Brian F. (1997) BS, MS, Brigham Young U., 1986, 1988; PhD, U. of California, Berkeley, 1995.
Woolley, Adam T. (2000) BS, Brigham Young U., 1992; PhD, U. of California, Berkeley, 1997.

Teaching Professor
Cannon, John Francis (1970) BS, PhD, Brigham Young U., 1965, 1969.

Associate Teaching Professors
Hinshaw, Barbara C. (1989) BA, Westminster Coll., 1966; MS, U. of Utah, 1969.
Wood, Steven G. (2001) BS, MS, PhD, Brigham Young U., 1973, 1975, 1983.

Assistant Teaching Professor
Brown, Philip R. (1999) BS, PhD, Brigham Young U., 1982, 1986.

Emeriti
Bills, James L. (1963) BS, U. of Utah, 1958; PhD, Massachusetts Inst. of Technology, 1963.
Blackham, Angus Udell (1952) BA, Brigham Young U., 1949; MA, PhD, U. of Cincinnati, 1950, 1952.
Bradshaw, Jerald S. (1966) BS, U. of Utah, 1955; PhD, U. of California, Los Angeles, 1963.
Broadbent, H. Smith (1946) BS, Brigham Young U., 1942; PhD, Iowa State U. of Science and Technology, 1946.
Butler, Eliot A. (1956) BS, PhD, California Inst. of Technology, 1952, 1956.
Cluff, Coran L. (1960) BS, Northern Arizona U., 1952; MS, PhD, U. of Michigan, 1955, 1961.
Dalley, Nelson Kent (1968) BS, MS, Brigham Young U., 1960, 1964; PhD, U. of Texas, Austin, 1968.
Goates, J. Rex (1947) BS, Brigham Young U., 1942; PhD, U. of Wisconsin, Madison, 1947.
Gubler, Clark J. (1958) BA, Brigham Young U., 1939; MA, Utah State U., 1941; PhD, U. of California, Berkeley, 1945.
Hall, H. Tracy (1955) BS, MS, PhD, U. of Utah, 1942, 1943, 1948.
Hawkins, Richard T. (1959) BA, Brigham Young U., 1951; PhD, U. of Illinois, 1959.
Izatt, Reed M. (1956) BS, Utah State U., 1951; PhD, Pennsylvania State U., 1954.
Mangelson, Nolan F. (1969) AS, Snow Coll., 1959; BS, Utah State U., 1961; MS, Brigham Young U., 1963; PhD, U. of California, Berkeley, 1967.
Mangum, John H. (1963) BS, MS, Brigham Young U., 1957, 1959; PhD, U. of Washington, 1963.
Nelson, K. LeRoi (1956) BS, Utah State U., 1948; PhD, Purdue U., 1952.
Ott, J. Bevan (1960) BS, MS, Brigham Young U., 1955, 1956; PhD, U. of California, Berkeley, 1959.
Paul, Edward G. (1965) BS, PhD, U. of Utah, 1958, 1962.
Smith, Marvin A. (1966) BS, Utah State U., 1960; MS, PhD, U. of Wisconsin, Madison, 1962, 1964.
Snow, Richard L. (1957) BS, PhD, U. of Utah, 1953, 1957.
Thorne, James M. (1966) BA, Utah State U., 1961; PhD, U. of California, Berkeley, 1966.
Vernon, Leo P. (1970) BA, Brigham Young U., 1948; PhD, Iowa State U. of Science and Technology, 1951.
Wilson, Byron J. (1965) BS, Idaho State U., 1955; MA, Southern Illinois U. 1958; PhD, U. of Washington, 1961.

Chinese

See Asian and Near Eastern Languages.

Church History and Doctrine

See Religious Education in Academic Departments, Degrees, and Courses section of this catalog.

Civil and Environmental Engineering

A. Woodruff Miller, Chair
368-C CB, (801) 422-2811

Steven E. Benzley, Associate Chair
350-U CB, (801) 422-2811

College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325

Admission to Degree Program

The degree programs in the Department of Civil and Environmental Engineering carry special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

The BYU Civil and Environmental Engineering Department prepares students for professional involvement in structural, water resources, environmental, geotechnical (soils), and transportation engineering.

Structural engineers analyze and design buildings, bridges, offshore oil platforms, aircraft, and artificial limbs. The engineer applies principles of physics, mathematics, and engineering to develop efficient yet safe designs. Sophisticated computer models are used in these analyses. Materials used by structural engineers include steel, aluminum, concrete, wood, graphite, fiberglass, kevlar, ceramics, and plastics.

Water-resource and environmental engineers design pipeline systems, water treatment plants, dams, flood control structures, waste disposal sites, and environmental restoration projects. Computer modeling and analyses are used in design and to forecast storm runoff, flooding, and movement contaminants in surface and subsurface waters.

Environmental engineers evaluate and reduce pollutants from natural, human, agricultural, and industrial sources to preserve the beauty and quality of air, land, and water.

Geotechnical engineers design structures composed of or located within earth materials, including foundations for buildings and bridges, retaining walls, earth dams, highway embankments, tunnels, and liners for landfills. Field and laboratory tests on soil and rock, along with empirical and computer models, are used to assure safety and economy in design.

Traffic and transportation engineers apply scientific principles to the planning, design, construction, operation, and management of transportation systems, including highways, airports, and mass transit facilities. Transportation engineers are responsible for the safe, rapid, comfortable, convenient, economical, and environmentally compatible movement of people and goods. Computer models and simulations are used by traffic engineers for planning, geometric design, and operation of transportation networks, including intermodal systems. Next to national defense, transportation is the largest sector in the U.S. economy, accounting for 17.5 percent of the gross national product (GNP); many engineers are employed in this field.

Educational Objectives

The objective of the undergraduate program in civil and environmental engineering is to develop the following attributes in students graduating from the program:

1. An understanding of fundamental principles of mathematics and science.
2. An understanding of fundamental engineering science.
3. An understanding of geotechnical engineering.
4. An understanding of structural engineering.
5. An understanding of transportation engineering.
6. An understanding of water resources and environmental engineering.
7. The ability to design civil engineering systems and solve open-ended problems.
8. The ability to communicate ideas effectively.
9. The ability to use modern engineering tools.
10. An understanding of professional practice and a commitment to lifelong learning.
11. An awareness of cultural, societal, political, and environmental issues.
12. A commitment to serve as professional engineers of integrity and faith.

Career Opportunities

Civil engineers are employed in industry, private consulting, and government. Industries employing many civil and environmental engineers include construction, transportation, aerospace, petroleum, and mining. Many civil engineers enter private consulting practices, and many eventually establish their own firms. The yellow-page directories for major cities generally list many civil, structural, environmental, geotechnical, and transportation engineering firms.

Civil engineers are also employed by national, local, and state governments. Most cities and counties have engineering departments staffed largely by civil engineers. Departments of transportation, environmental protection agencies, the Army Corps of Engineers, and the Bureau of Reclamation hire many civil engineers.

Civil engineering may be used as a preprofessional program for careers in architecture, law, and business.

Because civil engineeers design structures that affect public health and safety, licensure as a Professional Engineer is required for most positions. A necessary prerequisite for licensure is graduation from an accredited engineering program. The civil engineering program is fully accredited by the Accreditation Board for Engineering and Technology (ABET).

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Civil Engineering

Students should see the department for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Civil Engineering
PhD Civil Engineering

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

The Civil and Environmental Engineering Department requires acceptance into the professional program at the beginning of the junior year. See your advisement center for details.

Qualified students from junior colleges with adequate preengineering programs can normally complete the BS degree in two additional years. Students who transfer into the department from other universities or from other departments at BYU will be placed in the civil and environmental engineering program according to an evaluation of completed work. Prospective transfer students should contact the department as soon as possible so that any variations can be accommodated with a minimum loss of time.

A maximum of 9 credit hours with D grades are allowed in Civil and Environmental Engineering Department classes. Continued enrollment in professional program courses or clearance for graduation will be denied until D credits are reduced to 9 hours or less.

Integrated Master's Program. Although abundant professional employment is available with a bachelor's degree, professional opportunities are markedly improved by completing a master's degree.

At the end of the sophomore year or during the junior year of the civil engineering curriculum, those who have been accepted to the professional program and who desire to obtain a master's degree in civil engineering (MS) may enter the integrated master's program. In this program students may work toward both the bachelor's and master's degrees concurrently.

Applicants to the integrated program must have a cumulative GPA of 2.5 or higher. All credit to be counted toward the master's degree must carry a cumulative GPA of 3.0 or better. When students are within 30 credit hours of completing the graduate degree, they must also apply for and be admitted to graduate school.

Professional Engineer Registration. The Civil and Environmental Engineering Department encourages graduates to become Registered Professional Engineers. General qualifications for becoming registered are explained in the College of Engineering and Technology section of this catalog. This status is vital to engineering practice in the public sector and to much consulting work. The civil and environmental engineering program prepares graduates to successfully complete the Fundamentals of Engineering (FE) examination, an important step in becoming registered. Students who wish to strengthen their preparation for the FE exam should select the required engineering science course with this need in mind.

BS Civil Engineering (91 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following preprofessional courses:
   CEEn 100A,B, 103, 112.
   Chem 105.
   Math 112, 113.
2. Complete the following:
   Math 302, 303.
3. Complete one course from the following:
   Chem 106, 351.
   Math 311.
   MMBio 221.
   Phscs 220, 222.
4. Complete the following professional courses:
   CEEn 113, 200A,B, 203, 204, 270, 271, 300A,B, 305, 321, 332, 341, 351, 361, 400A,B, 424, 470.

   Note: Students should be enrolled in a seminar course each semester, from the time a preprofessional major is declared until graduation. Begin with CEEn 100A,B and continue in order with 200A,B, 300A,B, 400A,B.
5. Complete one course from the following:
   CEEn 431, 433.
6. Complete the following supporting courses:
   Engl 316.
   Geol 330.
   Phscs 123.
   RelC 492.
7. Complete 9 hours of technical electives from the following courses:
   CEEn 431, 433, 500, 501, 502, 506, 507, 508, 514, 522, 523, 527, 529, 531, 535, 540, 542, 543, 545, 547, 550, 555, 561, 562, 565, 570, 572, 575, 580, 594R.

   Note: 3 of the 9 hours may come from:
   ChEn 274, 378.
   ECEn 301R.
   MeEn 321.

*Hours include courses that may fulfill GE or university requirements.

Civil and Environmental Engineering (CEEn)

Undergraduate Courses

100A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W

Activities of civil engineering; principles and methods involved in solving civil engineering problems. College Lecture attendance required.

103. Engineering Mechanics—Statics. (2:2:0) F, W, Sp
Independent Study also. Prerequisite: Math 113 or concurrent enrollment.

Concepts of mechanics: force systems in equilibrium, resultants, friction, centroids, utilization of vector algebra.

112. Engineering Drafting with CAD Applications. (3:3:0) F, W
Structural and component drafting, emphasizing computer-automated (CAD) systems. Concepts include applied and descriptive geometry, multiview representation, sectional views, dimensional practices, and axonometric sketching.

113. Engineering Measurements. (3:2:3) F, Sp Prerequisite: Math 111, CEEn 112.
Measurement of horizontal and vertical distances and angles to locate engineering projects including profiles, plane and topographical mapping, site layout, and earthwork.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: consent of both department chair and cooperative education coordinator.
Work experience evaluated by supervisor and posted on student's transcript.

200A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W Prerequisite: CEEn 100A,B.
Activities of civil engineering; principles and methods involved in solving civil engineering problems. College Lecture attendance required.

203. Engineering Mechanics—Mechanics of Materials. (3:3:0) F, W, Su Independent Study also. Prerequisite: CEEn 103.
Fundamental concepts of elastic stress and strain relations; cylinders and spheres; torsion; beam theory, including bending stresses; deflections; and two-dimensional elastic theory.

204. Engineering Mechanics—Dynamics. (3:3:0) F, W, Su Independent Study also. Prerequisite: CEEn 103 or Phscs 121.
Concepts of dynamics applied to particles, systems of particles, rigid bodies, vibration systems, and nonrigid particles systems.

270. Computational Methods. (3:1:2) F, Sp Prerequisite: Math 113 or concurrent enrollment.
Numerical methods and computational techniques for solving civil engineering problems.

271. Probability, Statistics, and Engineering Economics. (2:2:0) F, Sp Prerequisite: Math 113.
Probability, random variables, frequency distributions, inferences on the mean, failure rates, life testing from an applied perspective. Engineering economic analysis.

300A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W Prerequisite: CEEn 200A,B.
Technical and professional activities in civil engineering. College Lecture attendance required.

302. Structures and Strength of Materials Fundamentals. (4:4:0) For nonmajors only. F Prerequisite: Phscs 105, CEEn 103.
Structural mechanics and strength of materials for soils, woods, concrete, and steel applied to practical construction situations.

305. Structural Engineering Materials. (3:2:3) F, W Prerequisite: CEEn 203, 271.
Characterization of structural engineering materials, including laboratory testing.

321. Structural Analysis. (3:3:0) F, Sp Prerequisite: CEEn 203, 270.
Deflection analysis by the method of virtual work. Analysis of statically indeterminate structures by the flexibility method, the stiffness method, and moment distribution. Computer analysis of structures.

332. Hydraulics and Fluid Flow Theory. (3:2:3) F, W even yr.; Sp odd yr.; Su even yr. Independent Study also. Prerequisite: CEEn 204 or concurrent enrollment; CEEn 270.
Fluid properties, fluid statics and dynamics, viscous flow, boundary layers, concepts of pipe and open-channel flow.

341. Elementary Soil Mechanics. (3:2:3) F, W Prerequisite: CEEn 203 or instructor's consent; CEEn 332, Geol 330, or concurrent enrollment.
Determination of stresses in soils, soil strength, consolidation, and settlement. Applications in fluid flow, lateral earth pressure, bearing pressure, and slope stability.

351. Environmental Engineering. (3:3:0) W; Sp even yr.; Su odd yr. Prerequisite: Chem 105, CEEn 271.
Environmental concerns, problems, and evaluation methodology; pollution control and engineering management approaches.

361. Introduction to Transportation Engineering. (3:2:3) F, Sp Prerequisite: CEEn 112, 113, 270, 271.
Transportation system characteristics, traffic engineering, traffic operations, transportation planning, highway geometric design, pavement design, highway safety, public transport.

400A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W Prerequisite: CEEn 300A,B.
Technical and professional activities in civil engineering. College Lecture attendance required.

424. Reinforced Concrete Design. (3:3:0) F, W Prerequisite: CEEn 321, 370.
Theory and design of reinforced concrete, including columns, beams, slabs, and footings; elastic and ultimate-strength methods of analysis.

431. Hydrology. (3:2:3) W; Sp even yr.; Su odd yr. Prerequisite: CEEn 332, 351.
Waters of the earth, their occurrence, circulation, and distribution. Relationships between precipitation, evaporation, infiltration, transpiration, groundwater, and stream runoff.

433. Hydraulic Engineering. (3:3:0) F; Sp odd yr.; Su even yr. Prerequisite: CEEn 332, 351.
Application of fluid mechanics principles to analysis and design of hydraulic structures and systems.

470. Design of Civil Engineering Systems. (3:2:3) F, W Prerequisite: CEEn 270, 305, Math 303, Engl 316; one of the following: CEEn 321, 341, 351, 361.
Civil engineering design process; basic engineering optimization; probability-based reliability analysis. Applied technical writing and oral presentation; comprehensive semester-long, small-group design project.

493R. Civil and Environmental Engineering Practicum. (1–18:Arr.:Arr. ea.) Prerequisite: instructor's consent.

498R. Directed Studies in Civil and Environmental Engineering. (1–18:Arr.:Arr. ea.) Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

500. (CEEn-MeEn) Design and Materials Applications. (3:3:0) W Prerequisite: MeEn 372 or CEEn 321.
Applied and residual stress; materials selection; static, impact, and fatigue strength; fatigue damage; surface treatments; elastic deflection and stability—all as applied to mechanical design.

501. (CEEn-MeEn) Stress Analysis and Design of Mechanical Structures. (3:3:0) Sp Prerequisite: CEEn 321 or MeEn 372.
Stress analysis and deflection of structures; general bending and torsion with computer applications to mechanical and aerospace structure design.

502. (CEEn-MeEn) Composite and Smart Structures. (3:3:0) On dem. Prerequisite: Math 303 or 334; CEEn 321 or MeEn 372..
Advanced composite structures; classical and energy approaches; design considerations; introduction to smart structures concepts.

503. (CEEn-MeEn) Plasticity and Fracture. (3:3:0) W Prerequisite: CEEn 203; MeEn 250; Math 303 or 334; senior standing or instructor's consent.
Tensor algebra; stress and deformation tensors; relationships between dislocation slip, yielding, plastic constitutive behavior, and microstructure development; cracks and linear elastic fracture mechanics.

505. Materials, Uses, and Properties of Concrete. (3:2:3) F Prerequisite: instructor's consent.

Manufacturing and testing of cements; concrete materials and concrete mix design; techniques of concrete handling, placing, and treatment; laboratory work.

506. (CEEn-MeEn) Continuum Mechanics and Finite Element Analysis. (3:3:0) Prerequisite: Math 303 or 334: CEEn 321 or MeEn 372; or equivalent.

Equilibrium, constitutive, and compatibility equations; closed-form solutions from elasticity; finite element theory, programming, and usage; membrane, axisymmetric, and solid elements. Application to heat transfer, fluid mechanics, and seepage.

507. (CEEn-MeEn) Computer Analysis and Optimization of Structures. (3:3:0) Prerequisite: Math 303 or 334; CEEn 321 or MeEn 372; or equivalents.

Matrix analysis of rods, shafts, beams, trusses, frames, and grids using the generalized stiffness method. Optimization methods for these structures. Organizing computer programs for structural analysis and structural optimization.

508. (CEEn-MeEn) Dynamics and Stability of Structures. (3:3:0) W Prerequisite: Math 303 or 334; CEEn 321 or MeEn 372.

Dynamic analysis of single degree-of-freedom, discrete multi-degree-of-freedom, and continuous systems. Static and dynamic stability of structures.

514. Engineering Applications of GIS. (3:3:0) W Prerequisite: senior or graduate status.

Introduction to GIS concepts. Data acquisition and database formulation including use of GPS. GIS uses in civil engineering.

522. Structural Steel Design. (3:3:0) Prerequisite: CEEn 305, 321, or equivalent.

Compression and tension of steel members, beams, and beam-columns. Elastic and inelastic lateral-torsional buckling. Structural fasteners. Emphasizes LFRD.

523. (CEEn- MeEn) Design of Aircraft Structures. (3:3:0) W Prerequisite: CEEn 321 or MeEn 372.

Requirements, objectives, loads, materials, and tools for design of airframe structures; static behavior of thin-wall structures; durability and damage tolerance; certification and testing. Airframe component team design project.

527. Design of Reinforced Concrete Buildings. (3:3:0) Prerequisite: CEEn 424 or equivalent.

Design for earthquake resistance; torsion effects, slendor columns, and two-way slabs.

529. Timber Design. (3:3:0) Sp Prerequisite: CEEn 321.

Timber species, composition, and grades; design of beams, straight and tapered glue-lam girders, columns, connections, trusses, shear walls, and structural systems.

531. Principles of Hydrologic Modeling. (3:2:3) F Prerequisite: CEEn 431, 433.

Advanced hydrologic and hydraulic principles with an emphasis on modeling for the purpose of planning and designing drainage, flood control, and other water resource facilities.

535. Hydraulic Design of Channels and Control Structures. (3:2:3) W Prerequisite: CEEn 431, 433.

Design of water conveyance channels and control structures, including siphons, chutes, weirs, flumes, dams, spillways, and outlet works.

540. Geo-Environmental Engineering. (3:3:0) Prerequisite: CEEn 341.

Geotechnical aspects of environmental engineering. Topics include municipal and hazardous solid waste landfill design and characterization and remediation techniques for contaminated soil and groundwater.

542. Foundation Engineering. (3:3:0) W; Sp odd yr. Prerequisite: CEEn 341 or equivalent.

Soil investigation, bearing capacity and settlement, design of spread footings, combined footings, mat foundations, retaining walls, pile foundations, and drilled shafts.

543. Earth- and Rock-Fill Structures. (3:3:0) Prerequisite: CEEn 341 or equivalent.

Design and construction of earth- and rock-fill dams, including selecting dam sites and materials, and applying seepage and pore pressure studies, shearing strength data, stability analysis, and construction controls.

545. Geotechnical Analysis of Earthquake Phenomena. (3:3:0) Prerequisite: CEEn 321, 341.

Earthquake magnitude and intensity; design ground motions, elementary dynamics of structures; response spectra; building code provisions; liquefaction and ground failure.

547. Seepage and Groundwater Modeling. (3:3:0) Prerequisite: CEEn 341, 431; or equivalents.

Techniques for modeling groundwater flow on a regional and local basis. Seepage analysis of levees, excavations, and earth dams.

550. Water Quality Management. (3:3:0) W Prerequisite: CEEn 351.

Philosophies, objectives, and methods for water quality management, including impact of various uses on water quality and behavior of pollutants in receiving waters.

555. Sanitary Engineering Analysis. (3:1:6) F Prerequisite: CEEn 351.

Techniques for chemical and biological analysis of major organic and inorganic constituents of water, sewage, and industrial wastes.

561. Geometric Design of Highways. (3:3:0) F Prerequisite: CEEn 361.

Designing visual aspects of highways: highway classification, design controls and criteria, design elements, vertical and horizontal alignment, cross section, intersections, interchanges, capacity analysis.

562. Traffic Engineering: Characteristics and Operations. (3:3:0) F Prerequisite: CEEn 361.

Traffic flow theory, traffic operations, characteristics of drivers and vehicles, parking facilities, at-grade intersections, channelization, traffic control devices, signals.

563. Pavement Design. (3:3:0) W Prerequisite: CEEn 361.

Properties and selection of pavement components including soils, stabilized soil, base, subbase, subgrade, and bituminous materials, along with design of rigid and flexible pavements.

565. Transportation in Urban Planning. (3:3:0) W Prerequisite: instructor's consent.

Street classification and function; design elements of streets, intersections, and access drives; transportation planning studies; land-use transportation interrelationships, improvement alternatives for urban transportation.

570. (CEEn-MeEn) Computer-Aided Engineering Software Development. (3:3:0) F on dem. Prerequisite: MeEn 273 or C progamming.

Programming methods for the development of engineering software. Data structures, architecture, libraries, and graphical user interfaces, with applications to CAD systems.

572. (CEEn-MeEn-CS 557) Computer-Aided Geometric Design. (3:3:0) F Prerequisite: proficiency in C programming.

Mathematical theory of free-form curves and surfaces and solid geometric modeling. Bezier and B-spline curve and surface theory, parametric and implicit forms, intersection algorithms, topics in computer algebra, and free-form deformation. Several programming projects.

575. (CEEn-MeEn) Optimization Techniques in Engineering. (3:3:0) On dem. Prerequisite: Math 302 and FORTRAN, C or similar computer language.

Application of computer optimization techniques to constrained engineering design. Theory and use of state-of-the-art computer routines. Robust design methods.

580. Hazardous Waste Management and Control. (3:3:0) W Prerequisite: CEEn 351 or instructor's consent.

Hazardous waste statutes and regulations; introduction to hazardous waste treatment, storage, disposal, and monitoring techniques.

594R. Selected Problems in Civil and Environmental Engineering. (1–3:Arr.:Arr. ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Civil and Environmental Engineering Faculty

Professors

Balling, Richard J. (1982) BA, BS, U. of Utah, 1978; MS, PhD, U. of California, Berkeley, 1979, 1982.
Benzley, Steven E. (1980) BES, MS, Brigham Young U., 1966, 1967; PhD, U. of California, Davis, 1971.
Christiansen, Henry N. (1965) BS, Utah State U., 1957; MS, PhD, Stanford U., 1958, 1962.
Durrant, S. Olani (1970) BES, MS, Brigham Young U., 1962, 1963; ScD, New Mexico State U., 1970.
Jensen, David W. (1993) BS, Brigham Young U., 1980; SM, PhD, Massachusetts Inst. of Technology, 1981, 1986.
Jones, Norman L. (1991) BS, Brigham Young U., 1986; MS, PhD, U. of Texas, Austin, 1988, 1990.
Merritt, LaVere B. (1970) BS, MS, U. of Utah, 1963, 1966; PhD, U. of Washington, 1970.
Miller, A. Woodruff (1974) BES, Brigham Young U., 1969; MS, ENG, PhD, Stanford U., 1970, 1972, 1975.
Rollins, Kyle M. (1987) BS, Brigham Young U., 1982; PhD, U. of California, Berkeley, 1987.
Saito, Mitsuru (1997) BS, Brigham Young U., 1981; MS, U. of Virginia, 1983; PhD, Purdue U., 1988.
Thurgood, Glen S. (1967) BES, MS, Brigham Young U., 1965, 1967; PhD, Texas A&M U., 1975.
Youd, T. Leslie (1984) BES, Brigham Young U., 1964; PhD, Iowa State U., 1967.

Associate Professors

Borup, M. Brett (1987) BS, Humboldt State U., 1980; MS, Utah State U., 1982; PhD, Clemson U., 1985.
Downs, Wayne C. (1996) BS, MS, Brigham Young U., 1975, 1980; ME, PhD, U. of Florida, 1984, 1993.

Assistant Professors

Fonseca, Fernando (1996) BS, MS, Brigham Young U., 1987, 1988; PhD, U. of Illinois, 1997.
Guthrie, W. Spencer (2002) BS, Utah State U., 1998; MS, PhD, Texas A&M U., 1999, 2002.
Lucas, Warren K. (1998) BS, MS, PhD, U. of Kansas, 1987, 1993, 2001.
Nelson, Jim (1996) BS, MS, PhD, Brigham Young U., 1989, 1990, 1994.

Assistant Research Professor

Zundel, Alan K. (1997) BS, MS, PhD, Brigham Young U., 1988, 1989, 1994.

Emeriti

Budge, W. Don (1964) BS, MS, Utah State U., 1959, 1961; PhD, U. of Colorado, 1964.
Calder, Glen H. (1955) BS, MS, Utah State U., 1952, 1953.
Firmage, D. Allan (1955) BS, U. of Utah, 1940; MS, Massachusetts Inst. of Technology, 1941.
Fuhriman, Dean K. (1954) BS, MS, Utah State U., 1941, 1950; PhD, U. of Wisconsin, Madison, 1952.
Goodwin, Reese J. (1967) BES, MS, Brigham Young U., 1962, 1963; PhD, U. of Utah, 1976.
Rollins, Ralph L. (1956) BS, MS, Utah State U., 1941, 1949; PhD, Iowa State U. of Science and Technology, 1954.
Wallace, Lynn P. (1983) BS, U. of Utah, 1963; MS, PhD, West Virginia U., 1968, 1970.
Wilson, Arnold (1957) BS, MS, Brigham Young U., 1957, 1962; PhD, Oklahoma State U., 1973.

Classical Civilization

See Humanities, Classics, and Comparative Literature section of this catalog.

Classical Studies or Classics

See Humanities, Classics, and Comparative Literature section of this catalog.

Communications

Michael K. Perkins, Chair
E-509 HFAC, (801) 422-2997

College of Fine Arts and Communications Advisement Center
D-444 HFAC, (801) 422-3537

Admission to Degree Program

The degree programs in the Department of Communications carry special enrollment limitations. Please see the college advisement center for specific details.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA Communications
Emphases:
Advertising and Marketing Communications
Broadcast Journalism
Communications Studies
Print Journalism
Public Relations
Minor Communications

Students should see their college advisement center for information concerning admittance to the undergraduate programs.

Graduate Programs and Degrees

MA Mass Communications

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

Working under faculty direction, students in the department edit and publish the *Daily Universe* as a laboratory newspaper for the campus, produce daily radio and television newscasts on KBYU-FM and KBYU-TV, produce @NewsNet.byu.edu for the Internet, plan advertising and public relations campaigns, solve media sales and management problems, and use "new media" in diverse situations.

The Department of Communications sponsors the International Media Studies Program, which seeks to broaden students' awareness of worldwide communications issues and practices. Not only do students have opportunity to study the media systems of other nations through classes and on-site experiences, but media practitioners of other nations are also brought to campus as lecturers and visiting experts.

The department encourages early admission. Students who enroll in Comms 101 and 211 can apply to the major as early as the second semester of their freshman year.

Departmental Requirements

1. Each student must be formally accepted into a degree program. Contact the college advisement center for admission requirements.
2. All students, including those who have received high school advanced-placement credit with a score of 3 or less, must take a campus writing class before applying for admission to the major. The following writing classes fill this requirement: Engl 115, 200, Phil 105, or HonP 200. (All these courses can fill the GE First-Year Writing requirement.)
3. Complete 80 hours outside the department, of which at least 65 hours must be in the liberal arts and sciences.
4. Except for communication studies students, every student is required to complete an internship. Although the department operates an internship office (F-340 HFAC) that serves as a clearinghouse for internship information, the responsibility for securing an internship rests with the student. However, students may not embark on any required internship without prior approval from a faculty advisor, before processing appropriate documents with the Internship Office (F-340 HFAC), and without being enrolled in Comms 399R.

Radio/Television Production

An interdisciplinary study of radio/television and interactive multimedia production is offered through the cooperation of the Department of Communications and the Department of Theatre and Media Arts. See the Theatre and Media Arts section of this catalog for courses or contact the College of Fine Arts and Communications Advisement Center for more information.

BA Communications: Advertising and Marketing Communications Emphasis (46–58 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The Discipline

Communications majors who choose the advertising and marketing communications emphasis will participate in a program that will give a strong grounding in the liberal arts and sciences, provide a firm grasp of communications theory and principles, and teach practical workplace skills.

In advertising and marketing communications courses students will learn how to use research in studying diverse audiences, to analyze communications problems, and to evaluate communications programs. They will write problem-solving strategies and create advertising and promotion messages to specific target audiences. Creative track students will learn how to concept consumer advertising ads in print and broadcast and will develop a quality portfolio required for entry-level careers in the creative field. Management students will learn how to evaluate and select the most effective media for reaching those target audiences and will gain an understanding of how broadcast, print, and other media are used in the marketing process.

Studies will culminate in the student's participation, as a team member, in creating and presenting a comprehensive and competitive integrated marketing communications campaign that includes research, advertising, and sales promotion.

Career Opportunities

This field provides career opportunities in advertising, media management, and advertising media sales as well as in its creative, research, marketing, media planning, and management functions.

Major Requirements

1. Complete the following:
   Comms 101, 211, 300, 319.
2. After consulting with a faculty advisor, complete an internship in conjunction with 1 hour of the following:
   Comms 399R.
3. Complete 12 hours from the following departmental electives:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 407, 411, 412, 449, 480.
4. Complete one of the following tracks:
   a. Management Track:
      1. Complete the following:
         BusM 340.
         Comms 230, 332, 432, 489.
      2. Complete one course from the following:
         Comms 330, 345.
   b. Creative Track:
      1. Complete the following:
         Comms 230, 331, 433, 489.
      2. Complete one course from the following:
         Comms 330, 345.
      3. Complete a minor in advertising design (15 hours).

      Note: Twelve students will be admitted to the creative track each year based on a screening and portfolio work. Portfolios must be submitted to the department's main office by the twelfth week of winter semester. Late portfolios will not be considered. It will take from four to five semesters to complete the design minor. Students interested in this track should qualify and apply early.
5. Complete one course from the following:
   Stat 105, 221.

*Hours include courses that may fulfill GE or university requirements.

BA Communications: Broadcast Journalism Emphasis (47 hours*)

This program has minimum criteria that students are required to meet for admission. Please see the college advisement center for information.

The Discipline

The study of journalism entails the mastery of working with people to present news and features in a way that reflects events accurately and fully. Students will acquire skills in analytical thinking, lucid writing, and effective interviewing to be able to present a clear and forceful picture of their subject in words and images. To have a broad background, students are encouraged to earn more than 60 percent of their credits in other departments, thereby developing a wide understanding of the world and the processes that make society work. In addition, students will become familiar with methods of writing that effectively reach mass audiences—that portray events and people in satisfying ways. Since a wide range of knowledge is essential within the field, students will study libel law, the process of communication, and such areas as the interaction between the mass media and society today.

Career Opportunities

The exciting field of journalism traditionally has offered the allure of working in a profession that has its finger on the changing pulse of society. Whether serving as reporters on television, radio, cable, online, daily newspapers, the community press, or in the growing magazine field, journalists find themselves rubbing shoulders with important people and recording important events.

A career in journalism implies not only skill with words, but the ability to make sound judgments and to ferret out facts. In addition to the obvious careers as reporters and editors, students often find their journalism skills in demand in a variety of other areas.

Many find the challenge of recording the drama of real life both satisfying and enlightening. Because of television, journalism has changed in recent years, but even though there has been a decline in the number of daily newspapers, an explosion of special interest magazines and online publishing has opened up innumerable jobs for writers and editors. These changes call for greater skill in writing to be able to visualize the world in an interesting way. Overall, one of journalism's great satisfactions has been the sense that one can make a difference in the world and bring about changes for the better.

Major Requirements

1. Complete the following:
   Comms 101, 211, 300, 319.
2. After consulting with a faculty advisor, complete an internship in conjunction with 1 hour of the following:
   Comms 399R.
3. Complete 12 hours from the following department electives:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 407, 411, 412, 449, 480.
4. Complete the following:
   Comms 321, 375, 425, 445, 487.
   TMA 174, 277R.
5. Complete one course from the following:
   Stat 105, 221.

*Hours include courses that may fulfill GE or university requirements.

BA Communications: Communications Studies Emphasis (43 hours*)

This program has minimum criteria that students are required to meet for admission. Please see the college advisement center for information.
This degree program is also available at the BYU Salt Lake Center.

The Discipline

This program is designed for the student who wants a broad, general undergraduate background in communications and does not necessarily want to specialize in advertising, broadcasting, print journalism, or public relations. This may be the student who plans to pursue advanced academic degrees rather than work in industry. The focus of the program is highly theoretical and conceptual.

Career Opportunities

This major does not lead to specific careers but is appropriate for those planning to pursue graduate or law degrees.

Major Requirements

1. Complete the following core courses:
   Comms 101, 211, 300, 319.
2. Complete the following:
   Comms 411, 483.
3. Complete 1 hour from the following practicum course:
   Comms 396R.
4. Complete 21 hours from the following:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 407, 412, 449, 480.
5. Complete one course from the following:
   Stat 105, 221.

*Hours include courses that may fulfill GE or university requirements.

BA Communications: Print Journalism Emphasis (43 hours*)

This program has minimum criteria that students are required to meet for admission. Please see the college advisement center for information.

The Discipline

The study of journalism entails the mastery of working with people to present news and features in a way that reflects events accurately and fully. Students will acquire skills in analytical thinking, lucid writing, and effective interviewing to be able to present a clear and forceful picture of their subject in words and images. To have a broad background, students are encouraged to earn more than 60 percent of their credits in other departments, thereby developing a wide understanding of the world and the processes that make society work. In addition, students will become familiar with methods of writing that effectively reach mass audiences—that portray events and people in satisfying ways. Since a wide range of knowledge is essential within the field, students will study libel law, ways of writing for magazines, the process of communication, and such areas as the interaction between the mass media and society today.

Career Opportunities

In the exciting field of journalism, traditionally there has been the allure of working in a profession that has its finger on the changing pulse of society. Whether serving as reporters on television, radio, cable, online, daily newspapers, the community press, or in the magazine field, journalists find themselves rubbing shoulders with important people and recording important events.

A career in journalism implies not only skill with words, but the ability to make sound judgments and to ferret out facts. In addition to the obvious careers as reporters and editors, students often find their journalism skills in demand in a variety of other areas.

Many find the challenge of recording the drama of real life both satisfying and enlightening. Because of television, journalism has changed in recent years, but even though there has been a decline in the number of daily newspapers, an explosion of special interest magazines and online publishing has opened up innumerable jobs for writers and editors. These changes call for greater skill in writing to be able to visualize the world in an interesting way. Overall, one of journalism's great satisfactions has been the sense that one can make a difference in the world and bring about changes for the better.

Major Requirements

1. Complete the following core courses:
   Comms 101, 211, 300, 319.
2. After consulting with a faculty advisor, complete an internship in conjunction with 1 hour of the following:
   Comms 399R.
3. Complete 12 hours from the following:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 407, 411, 412, 449, 480.
4. After consulting with a faculty advisor, complete the following:
   Comms 321, 323, 377, 487.
5. Complete 3 hours from one of the following:
   Comms 420, 428.
6. Complete one course from the following:
   Stat 105, 221.

*Hours include courses that may fulfill GE or university requirements.

BA Communications: Public Relations Emphasis (49 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The Discipline

The public relations emphasis provides training in one of the fastest growing areas in the communications field. It prepares students with critical skills in writing, strategic program planning and management, creative problem solving, and media relations. It can be either a highly credible terminal degree or excellent undergraduate preparation for an advanced degree.

Career Opportunities

Virtually all segments of the public and private sectors throughout the world draw employees from public relations graduates. Graduates may work as technical experts or in management tracks. They may specialize in employee relations, community relations, public affairs, media relations, or several other tracks within the professional arena.

Major Requirements

1. Complete the following core courses:
   Comms 101, 211, 300, 319.
2. After consulting with a faculty advisor, complete an internship in conjunction with 1 hour of the following:
   Comms 399R.

3. Complete 12 hours from the following:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 407, 411, 412, 449, 480.
4. Complete the following:
   Comms 235, 321, 336, 421, 485.
5. Complete one course from the following:
   Stat 105, 221.
6. Complete the following:
   Acc 200.
   BusM 340.

*Hours include courses that may fulfill GE or university requirements.

Minor Communications (15 hours)

Minor Requirements

1. Complete the following:
   Comms 101.
2. Complete 12 additional hours from the following:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 407, 411, 412, 449, 480.

Communications (Comms)

Undergraduate Courses

100. Media, Family, and Society. (3:3:0) F, W
Media's impact on the individual, family, and society. Understanding the processes of mass communication. Strategies to analyze and discuss media messages and cultivate awareness.

101. Mass Communication and Society. (3:3:0) Independent Study also.
Historical and modern roles of mass media in society, emphasizing media effects on individuals and institutions.

211. News Writing. (3:2:2) F, W, Sp, Su Prerequisite: pre-communications-major status; Engl 115, 200, Phil 105, or HonP 200 with a B minimum; or an English AP score of 4.
Principles and practices of identifying news and writing it for newspaper, radio, television, and Internet audiences. Lab required.

230. Introduction to Advertising. (3:3:0)
Principles of advertising; critical evaluation of its role and value in American society. Writing and creating ads for all media.

235. Introduction to Public Relations. (3:3:0)
Philosophy and practice of public relations in business, government, education, and other institutions. Study of publics, media, methods, press relations, and publicity.

300. Media Ethics, Law, and Responsibility. (3:3:0) F, W, Sp, Su Prerequisite: major status.
Introduction to First Amendment history and press freedom, law, and theory; media regulation and policy; relationship between law and ethics; key ethical issues in professional communications.

301. Mass Media History and Philosophy. (3:3:0) F Prerequisite: Comms 100 or 101 or instructor's consent.
History and philosophy of print, film, and broadcast communication media from their beginnings to the present; their roles as institutions in American society.

319. Research in Communication. (3:3:0) F, W, Sp, Su Prerequisite: Stat 105 or 221; major status.
Procedures and design considerations for studying media messages, audiences, and effects. Emphasizes survey and focus group approaches to data collection and analysis.

321. News Reporting. (3:2:5) F, W, Sp, Su Prerequisite: Comms 300 or concurrent enrollment; major status.
Research and reporting skills. Database retrieval and interviewing. Beat reporting for newspapers, radio, and online media. Lab required.

323. Newspaper Editing. (3:2:6) F, W, Sp, Su Prerequisite: Comms 321.
Editing copy, writing headlines, designing pages, editing photos, and handling wire copy. Lab required.

329. Opinion Writing. (3:3:0) F, W
Function of editorials, columns, commentaries, and reviews in the mass media. Open enrollment.

330. Creating Advertising Concepts—Portfolio 1. (3:3:0) Prerequisite: major status. Recommended: basic competency in Quark XPress and Photoshop or current enrollment in appropriate computer skills courses.
Basic consumer advertising: copywriting, design, and layout developed from creative strategies. Solving creative problems.

331. Creating Advanced Advertising Concepts—Portfolio 2. (3:3:0) Prerequisite: Comms 330; VADes 210; instructor's consent; high level of competency in software packages such as Quark XPress and Photoshop.
Advanced consumer advertising: copywriting, design, and layout.

332. Marketing Media Planning and Strategy. (3:3:2) F, W, Alt. term Prerequisite: Stat 105 or 221; computer spreadsheet competence; major status.
Media planning, theory, and practice in context of the marketing mix. Applying computer-based models as aids to media decisions. Writing marketing-based media plans. Case study approach to both print and broadcast media.

336. Public Relations Case Studies. (3:3:0) Prerequisite: Comms 321 or concurrent enrollment; major status.
Cases selected from wide range of actual public relations problems confronting business, government, education, and other institutions. Strategic planning matrix.

345. Media Sales and Promotion. (3:2:2) F, W, Alt. term Prerequisite: major status.
Fundamentals of media sales process. Theory and application of persuasion relating to media sales.

351. Media Literacy. (3:3:0) F, Alt. term Prerequisite: Comms 100 or 101.
Understanding media content and production processes to empower media consumers. Media culture in our increasingly multicultural society relative to politics of representing race, ethnicity, gender, and class.

352. Media and Consumer Behavior. (3:3:0) W
Conceptual and empirical relations between consumer information processing/choice behaviors and mass communications.

360. Media Management Principles and Theory. (3:3:0) W Prerequisite: Comms 100 or 101.
Managing communications organizations. Systems, motivation, leadership, communication, and regulations. Structure and economics of organizations. Factors of competition.

365. Photojournalism. (3:2:Arr.) F, W
Shooting, processing, selecting, and preparing photographs for use in publications. Open enrollment.

375. Broadcast Reporting. (3:3:Arr.) Prerequisite: Comms 321, TMA 174, 277R.
Principles and techniques of information gathering and visual storytelling. Includes beat coverage and recording and editing videotaped reports.

377. Feature Writing. (3:3:0) F, W, Alt. term Prerequisite: Comms 321.
Analysis of nonfiction magazine markets and effective writing methods; criticism of students' articles.

381. Comparative Media Systems. (3:3:0) W
Comparison of national media systems; normative theories of media organization and control.

382. Issues in International Communication. (3:3:0) F
International information flow; information flow and foreign policy; international regulation; cultural imperialism; intercultural interaction.

395R. International Media Studies Abroad. (1–3:Arr.:0 ea.) Alt. term
Study Abroad course emphasizing media and culture of region selected.

396R. Communications Practicum. (1:0:Arr. ea.) Prerequisite: instructor's consent and approval of task or projects.
Practice and projects in communication.

397R. Honors Tutorial. (1–2:Arr.:0 ea.) Prerequisite: instructor's and department's consent.

398R. Projects in Communications. (1–4:Arr.:0 ea.) Prerequisite: junior standing and approval of project.
Projects in communication studies.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: major status; clearance by the Communications Department.
Professional field experience.

401. Regional Mass Media Issues. (3:3:0) W
Media from different countries, cultures, or subcultures. Media outlets. Issues, including those due to variability in language, diversity, culture, and geo-political orientation.

402. Media Criticism. (3:3:0) Prerequisite: Comms 100 or 101.
Criticism of electronic media systems and their products and effects; critic's role and qualifications.

407. Advanced Media Law and Regulation. (3:3:0) W Prerequisite: Comms 300 or instructor's consent.
First Amendment philosophy underlying regulation of the mass media; libel, privacy, media relations with courts, broadcast regulation, advertising regulation, corporate communications; copyright, trademark.

411. Mass Communications Processes and Effects. (3:3:0) F, Alt. term Prerequisite: Comms 100 or 101; 319 and instructor's consent.
Mass communication as a social process, incorporating literature from journalism, social psychology, sociology, political science, and history. Factors in message construction, dissemination, and audience reception.

412. Communication Issues and Public Policy. (3:3:0) F, Alt. term Prerequisite: Comms 100 or 101.
Overview of issues, strategies, and role of communications professionals in various areas of American society, including media relations, government relations, community affairs, and consumer relations.

420. Advanced Print Reporting. (3:2:1) Prerequisite: Comms 319, 321.
Print news coverage of government, courts, education, and other institutions. Investigative reporting on major public issues and trends.

421. Public Relations Writing and Production. (3:3:1) Prerequisite: Comms 336.
Professional public relations writing and editing in a variety of formats as used in public relations applications.

425. Advanced Broadcast Reporting. (3:2:Arr.) Prerequisite: Comms 319, 375.
Broadcast news coverage of government, courts, education, and other institutions. Investigative reporting of major public issues and trends.

428. Publication Graphics and Production. (3:2:3) F, W, Alt. term Prerequisite: Comms 319, 321.
Layout and graphics for publications. Contemporary practices in production.

432. Account Planning Management. (3:3:0) For department majors only. Prerequisite: Comms 319 and completion of departmental statistics requirement.
Development and execution of a comprehensive strategic advertising research program, including data collecting, interpretation, field investigating, audience analysis, and strategy development.

433. Advanced Advertising Concepting—Portfolio 3. (3:3:0) Prerequisite: Comms 331; concurrent enrollment in Comms 439.
Capstone course in creating consumer advertising concepts, copywriting, design, and layout. Emphasizes finished portfolios.

445. Television News Producing. (3:3:Arr.) F, W, Sp Prerequisite: Comms 425.
Theory and practice of producing and presenting information for television. Role of television news in society, nature of audiences, production techniques, and TV news management. Lab includes producing and anchoring daily cable cast.

449. Electronic Media Programs and Audiences. (3:3:Arr.)
Basic program forms used in electronic media, effective program structure and appeals, and audience research and measurement.

480. Media Ethics and Moral Reasoning. (3:3:0) F Prerequisite: Comms 300 or instructor's consent.
Ethical issues in mass communication; integration of moral reasoning to critical mass communication issues.

483. Advanced Communications Studies. (3:3:0) F, W Prerequisite: Comms 319, 411.
Contemporary developments in communication theory, research, and practice.

485. Strategic Public Relations Campaigns. (3:3:0) Prerequisite: Comms 319, 421.
Capstone class applying communication principles to internal and external publics; fact finding, planning, and evaluating social interrelationships; major campaigns for selected clients.

487. Multimedia Journalism. (3:2:4) F, W, Su Prerequisite: Comms 420 or 425; or concurrent enrollment.
Capstone course for journalism students. Writing and reporting for print, online, and broadcast media. Creative collaboration with peers to create multilayered stories for different media.

489. Strategic Advertising Campaigns. (3:3:0) Prerequisite: Comms 319; 332, 432, 433, or concurrent enrollment.
Researching, planning, budgeting, creating, and writing national advertising campaigns; writing and producing a complete advertising plan, accompanied by a formal client presentation.

495R. Research and Readings in Communication Practice. (1–4:0:0 ea.) Prerequisite: senior standing and instructor's approval of projects.
Independent research projects and readings for communications majors.

499R. Honors Thesis. (1–3:Arr.:Arr. ea.) Prerequisite: approval of departmental honors coordinator.
Scholarly research paper related to student's program.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Communications Faculty

Professors

Egan, Kathryn S. (1986) BA, U. of Utah, 1964; MSJ, Northwestern U., 1965; PhD, U. of Southern California, 1972.

Hughes, John R. (1991)

Long, Richard K. (1999) BA, MA, Brigham Young U., 1965, 1967.
Martin, Dennis G. (1977) BA, Brigham Young U., 1967; MS, Northwestern U., 1968; PhD, U. of Illinois, 1985.
Wilson, Laurie (1989) BA, MA, Brigham Young U., 1980, 1982; PhD, American U., 1988.

Associate Professors
Adams, Edward E. (1999) BS, U. of Phoenix, 1986; MA, Brigham Young U., 1991; PhD, Ohio U., 1993.
Baker, Sherry L. (1996) BA, MA, PhD, U. of Utah, 1984, 1988, 1994.
Griffiths, Thomas A. (1985) BA, MA, Brigham Young U., 1968, 1976; PhD, U. of Utah, 1992.
McKinlay, Douglas R. (1999) BA, MA, Brigham Young U., 1968, 1969.
Mouritsen, Russell H. (1982) BA, Brigham Young U., 1969; MEd, PhD, U. of Utah, 1971, 1980.
Palmer, Allen W. (1996) BA, MA, Brigham Young U., 1970, 1979; PhD, U. of Utah, 1996.
Perkins, Michael K. (1999) BA, Brigham Young U., 1982; JD, U. of Utah, 1986.
Plowman, Kenneth D. (2002) BA, Brigham Young U., 1977; MA, George Washington U., 1981; PhD, U. of Maryland, 1995.
Stout, Daniel A., Jr. (1985) BA, Brigham Young U., 1979; MA, U. of Georgia, 1984; PhD, Rutgers U., 1993.
Thomsen, Steven R. (1996) BA, Brigham Young U., 1982; MA, Ball State U., 1984; PhD, U. of Georgia, 1994.

Assistant Professors
Campbell, Joel J. (2002) BA, Brigham Young U., 1997; MA, Ohio State U., 2000.
Randle, Quint B. (2000) BA, Brigham Young U., 1984; MA, Pepperdine U., 1995; PhD, Michigan State U., 2001.
Rawlins, Bradley L. (2000) BS, Washington State U., 1987; MA, PhD, U. of Alabama, 1992, 1995.
Stoker, Kevin L. (1999) BA Brigham Young U., 1981; MA, PhD, U. of Alabama, 1993, 1998.
Tanner, Eliza A. (2000) BA, Brigham Young U., 1991; MA, Arizona State U., 1995; PhD, U. of Wisconsin, 2000.
Walz, J. Robert (2002) BA, Brigham Young U., 1982.

Instructor
Dale E. Cressman.

Adjunct Faculty
Bruce L. Olsen, Duane Roberts

Emeriti
Barney, Ralph D. (1971) BS, Brigham Young U., 1957; MA, U. of Iowa, 1960; PhD, U. of Missouri, 1971.
Barrus, George S. (1967) BS, U. of Utah, 1950; MA, Brigham Young U., 1964; PhD, U. of Iowa, 1969.
Bartlett, Leonard L. (1987) BA, MA, Brigham Young U., 1957, 1989.
Bateman, J. LaVar (1949) BA, Brigham Young U., 1941; MS, PhD, U. of Wisconsin, Madison, 1947, 1950.
Beckham, Raymond E. (1949) BS, MA, Brigham Young U., 1949, 1969; PhD, Southern Illinois U., 1972.
Burnett, M. Dallas (1958) BS, Brigham Young U., 1954; MSJ, PhD, Northwestern U., 1958, 1967.
Butterworth, Edwin (1949) BA, U. of Utah, 1950; MA, Brigham Young U., 1954.
Hainsworth, Brad E. (1984) BA, MA, PhD, U. of Utah, 1963, 1966, 1968.
Kagel, Richard I. (1973) BA, Brigham Young U., 1968; MA, Fairfield U., 1973; PhD, Columbia Pacific U., 1980.
McKinlay, Lynn A. (1955) MA, Utah State U., 1974.
Nelson, Jack A. (1977) BA, Brigham Young U., 1954; MA, U. of Utah, 1964; PhD, U. of Missouri, 1971.
Porter, William C. (1972) BA, Brigham Young U., 1961; MA, U. of California, Los Angeles, 1963; EdD, Oklahoma State U., 1985.
Pratte, Paul Alfred (1984) BS, MA, Brigham Young U., 1962, 1967; PhD, U. of Hawaii, 1976.
Rich, Owen S. (1950) BS, Brigham Young U., 1950; MA, U. of Southern California, 1953; EdD, Pennsylvania State U., 1963.
Tarbox, Norman C. (1960) BS, U. of Utah, 1955; MS, Syracuse U., 1956; PhD, U. of Utah, 1979.
Valenti, JoAnn M. (1992) BSJ, MA, U. of Florida, 1967, 1969; PhD, U. of Michigan, 1983.
Whiting, Gordon C. (1974) BA, U. of Minnesota, 1959; MA, U. of Utah, 1961; PhD, Michigan State U., 1967.
Wolsey, Heber G. (1963) BS, Brigham Young U., 1942; MA, Northwestern U., 1949; PhD, Michigan State U., 1967.

Comparative Literature

See Humanities, Classics, and Comparative Literature section of this catalog.

Computer Science

Tony R. Martinez, Chair
3361 TMCB, (801) 422-3027

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

The degree programs in the Department of Computer Science carry special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Computer science, even though it is a relatively new field, touches virtually every area of human endeavor. It is the systematic study of the algorithmic processes—their theory, analysis, design, efficiency, implementation, and application. Fundamentally, computer science is a science of abstraction—creating the right model for a problem and devising the right computer manipulations to solve it.

The BS curriculum is accredited by the Computing Accreditation Commission of ABET.

The degree programs in computer science concentrate on the fundamental techniques and knowledge used in designing and implementing information processing systems, with emphasis on systems software design and computer organization.

Career Opportunities

Graduates from the Computer Science Department find ready employment in almost any area of computer use.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS	Computer Science
Minor	Computer Science Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Computer Science
PhD	Computer Science

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

Majors are admitted on the basis of performance in the fundamental courses (CS 124, 142, 235, Math 112, 113, Phscs 121).

Personnel in the College of Physical and Mathematical Sciences Advisement Center will advise regarding the fundamental and core courses, major admittance, and suggested General Education. Questions regarding curriculum and career decisions should be directed to the undergraduate advisor in the Computer Science Department.

Note: All hours of credit applied toward a major in computer science must be of C– or better and must be taken within eight years of declaring the computer science fundamentals major. Any exceptions must be approved by the department. Students may choose to graduate under later requirements by updating their date of entry into the major at the college advisement center.

BS Computer Science (80–82 hours*)

This is a limited enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   CS 124, 142, 224, 235, 236, 240, 252, 312, 324, 330, 345, 404.
3. Complete the following supporting courses:
   Engl 316.
   Math 112, 113, 343.
   Phscs 121, 220.
   Stat 321.
4. Complete two courses (6–8 hours) from the following (If you choose to take Chem 106, you must also take Chem 107 concurrently. This will only count as one class to fill this section):
   Biol 120 *and* 220 (both must be taken; counts as one course).
   Chem 105, 106 (must take 107 also).
   Geol 111, 330.
   InBio 341.
   Phscs 123, 222.

5. Complete four courses from 400-level computer science courses.
6. Complete one additional course from 400- or 500-level computer science courses.

   Note: CS 598R requires senior or graduate status in computer science and departmental approval before registering.

*Hours include courses that may fulfill GE or university requirements.

Minor Computer Science Teaching (20 hours)

Minor Requirements

1. Complete the following:
   CS 124, 142, 235, 236, 240.
2. Complete one additional computer science course with the approval of the Computer Science Department undergraduate coordinator.

Computer Science (CS)

Undergraduate Courses

100. (CS-CpIn) Fundamentals of Computing and Information. (3:3:0) For nonmajors. F, W, Sp
Computing, information structures, programming principles, Internet, World Wide Web, text, spreadsheets, data representations for images, sound and video.

124. (CS-ECEn) Introduction to Computer Systems. (3:3:2) F, W, Su Prerequisite: CS 142 or concurrent enrollment.
How a computer works, from hardware to high-level programming. Logic circuits, computer instructions, assembly language, binary arithmetic, C programming, program translation, data structures, and algorithm analysis.

142. Introduction to Computer Programming. (3:3:0) F, W, Sp, Su Prerequisite: knowledge of algebra.
Introduction to object-oriented program design and development. Principles of algorithm formulation and implementation.

199R. Academic Internship. (1–3:0:0 ea.) F, W, Sp, Su
Internships or cooperative education experiences with organizations outside BYU.

224. (CS-ECEn) Fundamentals of Digital Systems. (3:3:2) F, W Prerequisite: CS 124.
Digital logic: theory, design, and implementation of combinational and sequential logic. Laboratory experience in construction of digital logic circuits. Fee.

235. Data Structures and Algorithms. (3:3:0) F, W, Sp, Su Prerequisite: CS 142.
Fundamental data structures and algorithms of computer science; basic algorithm analysis; recursion; sorting and searching; lists, stacks, queues, trees, hashing; object-oriented data abstraction.

236. Discrete Structures. (3:3:0) F, W, Sp, Su Prerequisite: CS 235.
Introduction to grammars and parsing; predicate and propositional logic; proof techniques; sets, functions, relations, relational data model; graphs and graph algorithms.

240. Advanced Programming Concepts. (3:3:0) F, W, Alt. term Prerequisite: CS 235.
Advanced software development with an object-oriented focus. Development and testing of several 1500 to 2000 line modules from formal specifications. UNIX and C++ environment.

252. Introduction to Computational Theory. (3:3:0) F, W, Alt. term Prerequisite: CS 236.
Finite state automata, regular languages, lexical analysis; push-down automata, context-free languages, parsing; Turing machines and unrestricted grammars; computability, complexity, NP-completeness.

312. Algorithm Analysis. (3:3:0) F, W, Alt. term Prerequisite: CS 240, 252.
Analysis of algorithms including searching, sorting, graphs, and trees.

324. (CS-ECEn) Computer Architecture. (4:3:3) F, W, Alt. term Prerequisite: CS 224.
Performance-directed design principles, advanced pipelining, instruction-level parallelism (super scalar and VLIW CDUS), compiler optimizations, memory hierarchy design, etc.

330. Concepts of Programming Languages. (3:3:0) F, W, Sp Prerequisite: CS 240, 252.
Principles and concepts characterizing high-level computer programming languages, process and data abstraction, encapsulation, inheritance, functional programming, logic programming, scanners, and parsers.

345. Operating Systems Design. (3:3:0) F, W, Sp, Su Prerequisite: CS 324 or ECEn 428.
Principles and concepts of operating systems design and the implementation of an operating system.

404. Ethics and Computers in Society. (2:2:0) F, W, Alt. term Prerequisite: Engl 316; junior standing.
Societal impact of computer technology, the computer scientist's place in society, ethical issues. Reading, discussion, and writing seminar.

428. Software System Design and Implementation. (3:3:0) Alt. sem., Alt. term Prerequisite: CS 312, 330.
Analysis, design, implementation, and testing of significant software systems.

429. Software Testing. (3:3:0) F Prerequisite: CS 312, 330.
Strategies for testing large systems compared and critiqued, with opportunities to test actual systems.

431. Algorithmic Languages and Compilers. (3:3:0) Alt. sem., Alt. term Prerequisite: CS 312, 330.
Formal description of algorithmic languages and techniques used in their compilation: semantics, ambiguities, procedures, replication, iteration, recursion.

450. Introduction to Digital Signal and Image Processing. (3:3:0) On dem. Prerequisite: CS 312, Math 343, or equivalent.
One- and two-dimensional signal-processing fundamentals, including sampling, noise, transforms, filtering, enhancement, and compression. Hands-on experimentation with speech, music, still images, and full-motion video.

452. Database Modeling Concepts. (3:3:0) F, W Prerequisite: CS 312, 330.
Database models: relational, deductive, object-oriented. Integrity constraints, query languages, database design.

455. Computer Graphics. (3:3:0) Alt. sem., Alt. term Prerequisite: CS 312, 330.
Interactive computer graphics systems programming and architecture.

456. Introduction to User Interface Software. (3:3:0) Prerequisite: CS 312, 330.
Introduction to software architectures and techniques for graphical user interfaces. Input devices, windowing systems, event-driven programming, interactive geometry.

460. Computer Communications and Networking. (3:3:0) F, W Prerequisite: CS 312, 324.
Introduction to data communications and computer networking. Communications fundamentals, computer networks, software, architecture, telecommunications, regulation, standards.

462. Large-Scale Distributed System Design. (3:3:0) F Prerequisite: CS 330, 345.
Designing and implementing client-server enterprise applications. Web servers, application servers, database connectivity, remote procedure calls, transactions, messaging, directory, naming services, threads, security, data formats.

465. Computer Security. (3:3:0) F Prerequisite: CS 330. Recommended: CS 404.

Introduction to computer security fundamentals: confidentiality, integrity, authentication, and access control. Secret key and public key cryptography, network security protocols, viruses, and fire walls.

470. Introduction to Artificial Intelligence. (3:3:0) F Prerequisite: CS 312.

Introduction to core areas of artificial intelligence; intelligent agents, problem solving and search, knowledge-based systems and inference, planning, uncertainty, learning, and perception.

478. Introduction to Neural Networks and Machine Learning. (3:3:0) F Prerequisite: CS 252, 312.

Neural network and machine learning models include Perceptrons, back-propagation, decision trees, genetic algorithms, and other mechanisms allowing computers to learn without being programmed.

500-Level Graduate Courses (available to advanced undergraduates)

553. Information Retrieval. (3:3:0) F Prerequisite: CS 236 or equivalent.

IR modeling, IR query languages, text indexing and searching, retrieval evaluation, query and text operations, parallel and distributed IR, Web searching.

557. (CS-CEEn 572-MeEn 572) Computer-Aided Geometric Design. (3:3:0) Prerequisite: proficiency in C programming.

Mathematical theory of free-form curves and surfaces and solid geometric modeling. Bezier and B-spline curve and surface theory, parametric and implicit forms, intersection algorithms, topics in computer algebra, free-form deformation. Several programming projects.

586. Formal Methods in Computer System Design. (3:3:0) Prerequisite: CS 236, 324, or equivalent.

Use of formal specification and verification in the design of computer systems. Introduction to model checking algorithms and the state explosion problem.

598R. Special Projects. (1–3:0:0 ea.) Prerequisite: instructor's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Computer Science Faculty

Professors

Barrett, William A. (1987) BA, PhD, U. of Utah, 1974, 1978.
Burton, Robert Preece (1974) PhD, U. of Utah, 1973.
Campbell, Douglas M. (1971) BA, Harvard U., 1967; PhD, U. of North Carolina, 1971.
Christensen, Larry C. (1983) BA, Brigham Young U., 1963; MA, Central Michigan U., 1968; EdD, Brigham Young U., 1981.
Cornell, Aurel (1980) MS, PhD, Polytechnic Inst. of Timisoara, Rumania, 1960, 1971.
Embley, David W. (1982) BA, MS, U. of Utah, 1970, 1972; PhD, U. of Illinois, 1976.
Higgins, John C. (1961) BA, MA, Brigham Young U., 1958, 1960; PhD, U. of California, Berkeley, 1966.
Martinez, Tony R. (1987) BS, Brigham Young U., 1982, MS, PhD, U. of California, Los Angeles, 1983, 1986.
Olsen, Dan R. (1985) BS, MS, Brigham Young U., 1976, 1978; PhD, U. of Pennsylvania, 1981.
Sederberg, Thomas W. (1978) BS, MS, Brigham Young U., 1975, 1977; PhD, Purdue U., 1983.
Woodfield, Scott N. (1985) BS, MS, Brigham Young U., 1975, 1978; PhD, Purdue U., 1980.

Associate Professors

Barker, Joseph Cory (2001) BS, PhD, Brigham Young U., 1982, 1994.
Clement, Mark J. (1994) BS, MS, Brigham Young U., 1985, 1989; PhD, Oregon State U., 1994.
Egbert, Parris (1992) BS, Utah State U., 1986; MS, PhD, U. of Illinois, 1990, 1992.
Flanagan, Kelly J. (1993) BS, MS, PhD, Brigham Young U., 1988, 1989, 1993.
Morse, Bryan S. (1994) BS, MS, Brigham Young U., 1986, 1990; PhD, U. of North Carolina, 1994.
Ng, Yiu Kai (Dennis) (1991) BS, Brigham Young U., 1982; MS, Brigham Young U., 1984; PhD, Kansas State U., 1991.

Assistant Professors

Goodrich, Michael A. (1999) BS, MS, PhD, Brigham Young U., 1992, 1995, 1996.
Jones, Michael D. (2001) BS, MS, Brigham Young U., 1995, 1997; PhD, U. of Utah, 2001.
Knutson, Charles D. (2000) BS, MS, Brigham Young U., 1988, 1994; PhD, Oregon State U., 1998.
Langkilde-Geary, Irene (2002) BS, Brigham Young U., 1995; MS, PhD, U. of Southern California, 1999, 2002.
Mercer, Eric G. (2002) BS, MS, PhD, U. of Utah, 1996, 1999, 2002.
Peterson, Todd (1999) BS, Brigham Young U., 1993; MS, PhD, U. of Alabama, 1996, 1999.
Rodham, Kenneth J. (2001) BS, MS, PhD, Brigham Young U., 1990, 1992, 1995.
Seamons, Kent (2000) BS, Brigham Young U., 1986; PhD, U. of Illinois, 1996.
Seppi, Kevin (2002) BS, Brigham Young U., 1983; MS, U. of Santa Clara, 1986; PhD, U. of Texas, 1990.
Snell, Quinn (1997) BS, MS, Utah State U., 1992, 1993; PhD, Iowa State U., 1997.
Ventura, Dan A. (2001) BS, MS, PhD, Brigham Young U., 1992, 1995, 1998.

Emeriti

Ashton, Alan C. (1972) BA, PhD, U. of Utah, 1966, 1970.
Beus, H. Lynn (1971) BA, Brigham Young U., 1961; MS, Case Inst. of Technology, 1964; PhD, Case Western Reserve U., 1967.
Burton, Robert C. (1964) BS, Brigham Young U., 1956; PhD, U. of North Carolina, 1963.
Dean, C. Edwin (1949) BS, MS, Brigham Young U., 1948, 1952; MS, U. of Michigan, 1955.
Hays, Bill (1970) BS, East Texas State U., 1963; MS, U. of Iowa, 1967; PhD, Northwestern U., 1970.
Ivie, Evan Leon (1979) BS, BES, Brigham Young U., 1956, 1956; MS, Stanford U., 1957; PhD, Massachusetts Inst. of Technology, 1966.
McClurg, Lynn E. (1972) BGE, U. of Nebraska, 1966; MS, U. of Southern California, 1972; EdD, Brigham Young U., 1978.
Norman, Theodore A. (1970) BS, U. of Utah, 1962; MS, PhD, Washington State U., 1968, 1970.
Robison, Parley P. (1967) BS, U. of Utah, 1958.
Stokes, Gordon E. (1969) BS, Brigham Young U., 1961; MS, U. of Idaho, 1969; EdD, Brigham Young U., 1981.
Todd, Henry S. (1982) BES, MS, Brigham Young U., 1960, 1965; MS, U. of Rochester, 1968; PhD, U. of Arizona, 1973.
Wright, Norman Edward (1963) BS, Brigham Young U., 1951.

Adjunct Professor

Windley, Phillip J. (1993) BS, U. of Idaho, 1982; MS, PhD, U. of California, Davis, 1988, 1990.

Computers and the Humanities

See Linguistics and English Language section of this catalog.

Computing and Information

Dan R. Olsen Jr., Coordinator
3334 TMCB, (801) 422-7655

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

The Discipline

This minor program will educate students so they can:

1. Use computers to create, organize, manipulate, and communicate information in ways that will enhance their life's work.
2. Talk to and work with the computing professionals who support and develop their information tools.

The program is administered jointly by the following colleges and departments:

College of Biology and Agriculture
College of Family, Home, and Social Sciences
College of Fine Arts and Communications
College of Humanities
College of Physical and Mathematical Sciences
School of Accountancy and Information Systems

Minor Computing and Information (18 hours)

This is a limited-enrollment program requiring admissions approval. Please see the College of Physical and Mathematical Sciences Advisement Center for information regarding requirements for admission to this minor.

Major Requirements

1. Complete the following prerequisite course:
   CpIn-CS 100.
2. Complete one course from the following:
   CPIn 210, 220.
3. Complete two courses from the following:
   CpIn 210, 220, 230, 240, 250.

   Note: CpIn 210 and 220 will not double count.
4. Complete two elective courses (6 hours). A list of approved elective courses may be obtained in the College of Physical and Mathematical Sciences Advisement Center.

Computing and Information (CpIn)

Undergraduate Courses

100. (CS–CpIn) Fundamentals of Computing and Information. (3:3:0) For nonmajors. F, W, Sp
Computing, information structures, programming principles, Internet, World Wide Web, text, spreadsheets, data representations for images, sound, and video.

210. Visual Environments for Programming. (3:3:0) Prerequisite: CS–CpIn 100.
Programming visual user interfaces, designing applications, scripting languages; visual interaction design principles, including color fonts and layout.

220. Procedural Programming. (3:3:0) Prerequisite: CS–CpIn 100.
Object-oriented program design and development. Principles of algorithm formulation and implementation.

230. Introduction to Multimedia. (3:3:0) Prerequisite: CS–CpIn 100.
Technical skills in creating digital multimedia, including images, audio, video, and animation. Storytelling, aesthetics, and visual design. Web site creation.

240. Database Design and Access. (3:3:0) Prerequisite: CS–CpIn 100.
Modeling information. Relational databases and SQL. Query formulation and application development using databases. Data transaction management.

250. Networked Communications. (3:3:0) Prerequisite: CS–CpIn 100.
Data communications on intranets and the Internet. Designing and operating networks. Understanding networking protocols, including telephone, Internet, and wireless.

400R. Special Projects in Computing and Information. (3:3:0 ea.) On dem Prerequisite: instructor's consent.
Projects that enhance computing and information skills.

489R. Special Topics in Computing and Information. (3:3:0 ea.) On dem Prerequisite: instructor's consent.
Applying computing and information technology to a variety of disciplines.

Construction Management

See School of Technology.

Counseling Psychology and Special Education

David O. McKay School of Education Advisement and Certification Office
120 MCKB, (801) 422-3426

Admission to Degree Program

Students must apply to the Counseling Psychology and Special Education Department for admission to the special education undergraduate degree and post-baccalaureate licensing programs. Applications may be obtained from the department office in 340 MCKB or on the department Web site at *www.byu.edu/cse.*

Undergraduate Programs and Degrees

BS Special Education
Emphases
Mild/Moderate Disabilities
Severe Disabilities

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS School Counseling Psychology
MS Special Education
PhD Counseling Psychology

For more information see the BYU 2003–2004 Graduate Catalog.

General Information—Licensing Programs

Post-Baccalaureate Special Education Licensing

Individuals who have already completed a bachelor's degree who apply and are admitted to the special education licensing program may be licensed in special education upon completion of the required licensing course work. No degree designation is given for this option.

BS Special Education: Mild/Moderate Disabilities Emphasis (51 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the Education Advisement and Certification Office for information regarding requirements for admission to this program.

Major Requirements

1. Complete the following core courses:
   CPSE 400, 410, 420, 430, 440, 470, 480.
   IP&T 286, 515R.
2. Complete the following emphasis courses:
   CPSE 442, 446R, 452, 462, 466R, 490.
3. Complete 8 hours of the following student teaching or internship experience:
   CPSE 486R, 496R.
4. Complete 6 hours from the following:
   ASL 101, 102, 301.
   ASLP 330.
   ElEd 302, 340.
   IP&T 301.
   Ling 230, 440, 460, 471.
   MFHD 210, 324.
   PE 102R.
   Psych 220, 320, 321.

BS Special Education: Severe Disabilities Emphasis (51 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the Education Advisement and Certification Office for information regarding requirements for admission to this program.

Major Requirements

1. Complete the following core courses:
   CPSE 400, 410, 420, 430, 440, 470, 480.
   IP&T 286, 515R.
2. Complete the following emphasis courses:
   CPSE 443, 447R, 453, 463, 467R, 490.
3. Complete 8 hours of the following student teaching or internship experience:
   CPSE 487R, 496R.
4. Complete 6 hours from the following:
   ASL 101, 102, 301.
   ASLP 330.
   ElEd 302, 340.
   IP&T 301.
   Ling 230, 440, 460, 471.
   MFHD 210, 324.
   PE 102R.
   Psych 220, 320, 321.

Counseling Psychology and Special Education (CPSE)

Undergraduate Courses

400. Exceptional Students: Principles of Collaboration. (2:1:Arr.) F, W Sp, Su
Basic principles and legislative issues in effectively communicating and collaborating with professionals, parents, and other service providers to meet needs of individuals with disabilities in inclusive, educational environments. Lab.

401R. Practicum in Educational Partnerships. (1:0:1 ea.) F, W, Sp, Su Prerequisite: admission to elementary, secondary, or special education program.
Collaborating with parents, professionals, and others to meet needs of individuals with disabilities in inclusive or special education environments.

410. Applied Behavior Analysis in Education. (3:3:2) Prerequisite: admission to special education program.
Strategies for educating individuals with at-risk disabilities. Prevention, early intervention, and treatment strategies.

420. Assessment and Evaluation of Students with Exceptional Needs. (3:2:1) Prerequisite: admission to special education program.
Determining present levels of performance, classifying students for special education services, and writing goals and objectives for IEP development.

430. Teaching Reading/Language Arts to Students with Disabilities. (3:3:0) Prerequisite: admission to special education program; CPSE 400 or equivalent.
Research-based methods for teaching language arts to students with disabilities.

440. Curriculum and Instruction for Secondary Students with Disabilities. (1–3:Arr.:Arr.) Prerequisite: admission to special education program; CPSE 400 or equivalent; concurrent enrollment in CPSE 446R or 447R.
Selecting and adapting curriculum accommodations, transition planning, and postsecondary preparation.

442. Social and Behavioral Strategies for Students with Mild/Moderate Disabilities. (3:2:1) Prerequisite: admission to special education program; CPSE 400, 410.
Principles, procedures, and strategies for classroom behavior management, social competence, and individual and schoolwide intervention plans.

443. Social and Behavioral Strategies for Students with Severe Disabilities. (3:3:0) Prerequisite: admission to special education program; CPSE 400, 410.
Principles, procedures, and strategies for creating positive educational environments, including functional assessment, behavior intervention plans, and developing social competence.

446R. Practicum in Secondary Education: Mild/Moderate Disabilities. (1:0:Arr. ea.) Prerequisite: admission to special education program; CPSE 400 or equivalent; concurrent enrollment in CPSE 440 (secondary).
Teaching students with mild/moderate disabilities in secondary settings.

447R. Practicum in Secondary Education: Severe Disabilities. (1:0:Arr. ea.) Prerequisite: admission to special education program; CPSE 400 or equivalent; concurrent enrollment in CPSE 440 (secondary).
Teaching students with severe disabilities in secondary settings. Fee.

452. Effective Teaching Strategies for Students with Mild/Moderate Disabilities. (3:3:0) Prerequisite: admission to special education program; CPSE 400, 410.
IEP-based lesson planning and teacher-directed, student-mediated instructional strategies.

453. Curriculum and Instruction: Severe Disabilities. (3:3:0) Prerequisite: admission to special education program or instructor's consent.
Strategies for designing and implementing educational programs, curricula, and teaching methods for students with severe disabilities.

462. Teaching Math to Students with Disabilities. (3:3:0) Prerequisite: CPSE 400 or equivalent; admission to special education program.
Research-based methods.

463. Assistive Technology for Students with Disabilities. (3:3:0) Prerequisite: admission to special education program or instructor's consent.
Using assistive technology to improve communication skills and education of students with disabilities.

466R. Practicum: Teaching Students with Mild/Moderate Disabilities. (1–4:0:Arr. ea.) Prerequisite: admission to special education licensure program; CPSE 400 or equivalent.
Effective teaching cycle for students with mild/moderate disabilities.

467R. Practicum: Teaching Students with Severe Disabilities. (1–4:0:Arr. ea.) Prerequisite: admission to special education licensure program; CPSE 400 or equivalent.
Effective teaching cycle for students with severe disabilities.

470. Legal Issues Influencing Collaboration in Special Education. (3:3:0) Prerequisite: CPSE 400 or equivalent; admission to special education program.
Laws and issues influencing special education and educators' roles in collaborating with families and professionals.

480. Educational and Multicultural Issues in Special Education. (3:Arr.:Arr.)
Special education issues: multicultural, historical, and legal foundations.

486R. Student Teaching: Students with Mild/Moderate Disabilities. (4–12:Arr.:Arr. ea.) Prerequisite: successful completion of all core courses and practica in special education.
Culminating experience teaching students with mild/moderate disabilities in school settings.

487R. Student Teaching: Students with Severe Disabilities. (4–12:Arr.:Arr. ea.) Prerequisite: successful completion of all core courses and practica in special education.
Culminating experience teaching students with severe disabilities in school settings.

490. Capstone Seminar: Students with Disabilities. (1:1:0) Prerequisite: successful completion of all special education courses and concurrent enrollment with student teaching/internship.
Synthesizing knowledge and skills in special education; developing professional ethics and commitment to professional development.

493R. Readings. (1–2:Arr.:Arr. ea.) F, W, Sp, Su

496R. Academic Internship: Special Education. (1–12:Arr.:Arr. ea.) Prerequisite: departmental approval of application; placement one semester in advance of registration.
Practicing individual and group skills, testing and other techniques and responsibilities consistent with advanced training. Fee.

500-Level Graduate Courses (available to advanced undergraduates)

503. Education of Individuals with Disabilities. (3:3:0) F Prerequisite: concurrent enrollment in student teaching or internship.
Developing, implementing, and evaluating programs for individuals with disabilities.

514R, 515R. Special Topics in Educational Psychology. (1–3:3:1 ea.) F, W, Sp, Su Independent Study also. Prerequisite: instructor's consent.

Note: No graduate credit is given for CPSE 514. CPSE 515R credit may count toward a graduate degree if prior approval is obtained.
—Assessing Learning and Behavior
—Changing Role of the Counselor
—Classroom Behavior Management
—Current Topics in Counseling
—Current Topics in Educational Psychology
—Current Topics in Special Education
—Curriculum for Exceptional Children
—Effective Teaching
—Emotionally Handicapped
—Evaluating Student Learning
—Exceptional Children in the Regular Classroom
—Gifted and Talented
—Intellectually Handicapped
—Learning Disabled
—Microcomputers in Schools
—Motivation
—Program Evaluation
—Self-Concept
—Teaching Exceptional Children
—Understanding Exceptional Children

518. Introduction to Gifted/Talented Education. (2:2:1) F, W, Su Independent Study also.
Various approaches to educating the gifted and talented.

519. Assessment: Severe Disabilities. (1–3:Arr.:0) Su
Foundation course in assessing, diagnosing, and evaluating individuals with severe/profound disabilities.

525. Education of Students with Learning Disabilities. (3:3:3) F, W, Sp Prerequisite: instructor's consent.

533R. Practicum in Assessment: Mild/Moderate Disabilities. (1–3:0:Arr. ea.) Su
Assessing, diagnosing, and evaluating individuals with disabilities.

545. Gifted: Creativity and Thinking Strategies. (2:2:0) W, Su
Nature of creativity and approaches to nurturing it.

546. Helping Relationships: Basic Concepts and Skills. (1–3:Arr.:Arr.) For students interested in professional, paraprofessional, peer, or lay counseling. F, W
Basic interviewing and helping skills.

560. Leadership in Student Services. (3:3:0) On dem.
Applying leadership and administrative theory and methods to student services in school and related educational settings. Helping skills for counselors, school psychologists, principals, teachers, and others interested in the learning and emotional climate of the school.

580R. Directed Observation in the Schools. (1–3:0:8 ea.) F, W, Sp, Su Prerequisite: instructor's consent.

582R. Practicum: Individuals with Emotional and Behavioral Disabilities. (1–8:0:8 ea.) F, W, Su Prerequisite: instructor's consent, CPSE 511, and prior application. Fee.

584R. Practicum: Individuals with Learning Disabilities. (2–8:0:8 ea.) F, W, Sp Prerequisite: CPSE 526; departmental approval of application and placement one semester in advance of registration. Fee.

586R. Student Teaching: Students with Mild/Moderate Disabilities. (4–12:0:Arr. ea.) Prerequisite: Successful completion of all core courses and practica in the special education program.
Culminating experience teaching students with mild/moderate disabilities in school settings. Fee.

587R. Student Teaching: Students with Severe Disabilities. (4–12:0:Arr. ea.) Prerequisite: successful completion of all core courses and practica in the special education program.
Culminating experience teaching students with severe disabilities in school settings. Fee.

599R. Academic Internship: Special Education. (4–12:0:0 ea.) Prerequisite: successful completion of all core courses and practica in the special education program.
Culminating experience in the licensure program teaching students with disabilities in a school setting full-time for one academic school year.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Counseling Psychology and Special Education Faculty

Professors
Egan, M. Winston (1993) BA, Brigham Young U., 1967; MAT, Oakland U., 1972; PhD, U. of Florida, 1974.
Prater, Mary Anne (2001) BM, MS, U. of Utah, 1975, 1982; PhD, Utah State U., 1987.
Richards, P. Scott (1990) BS, MS, Brigham Young U., 1981, 1983; PhD, U. of Minnesota, 1988.
Young, K. Richard (1998) BS, MS, PhD, U. of Utah, 1969, 1971, 1973.

Associate Professors
Dyches, Tina Taylor (1995) BS, Brigham Young U., 1986; MS, Utah State U., 1990; EdD, Illinois State U., 1995.
Gibb, Gordon S. (1996) BS, Eastern Montana Coll., 1976; MEd, Brigham Young U., 1988 ; PhD, U. of Utah, 1994.

Assistant Professors
Allen, Melissa A. (1999) BS, Brigham Young U., 1975; PhD, Texas A&M U., 1996.
Ashbaker, Betty Y. (1998) BS, MS, Utah State U., 1972, 1974; PhD, Brigham Young U., 1981.
Crook, Rachel E. (2002) BS, Brigham Young U., 1996; MA, PhD, U. of Maryland, College Park, 2000, 2002.
Jackson, Aaron P. (1998) BS, MA, Brigham Young U., 1985, 1989; PhD, U. of Missouri, Columbia, 1993.
Jerome, Annette C. (1998) BA, MA, California State University, Fresno, 1978, 1983; PhD, Brigham Young U., 1995.
Marchant, Michelle (2001) BS, MS, PhD, Utah State U., 1991, 1996, 2000.
Smith, Timothy B. (1999) BS, Brigham Young U., 1991; MA, MS, PhD, Utah State U., 1993, 1996, 1997.
Wilder, Lynn K. (1999) BS, MA, EdD, Ball State U., 1975, 1978, 1999.
Young, Ellie L. (2001) BS, MEd, SPC, Brigham Young U., 1986, 1987, 1988; PhD, U. of South Florida, 2001.

Emeriti
Bauer, Edith B. (1945) BA, MA, Brigham Young U., 1930, 1946; PhD, U. of California, Berkeley, 1956.
Bingham, Ronald D. (1971) BS, Utah State U., 1961; MEd, PhD, Pennsylvania state U., 1965, 1970.
Crandell, John M. (1970) BA, MA, Arizona State U., 1951, 1957; PhD, U. of Texas, Austin, 1966.
Gale, Darwin F. (1969) BS, MS, Utah State U., 1958, 1960; EdD, Brigham Young U., 1967.
Harris, James M. (1955) BS, MS, Utah State U., 1952, 1953; PhD, Cornell U., 1955.
Ingram, Cregg F. (1975) BS, MS, U. of Utah, 1968, 1970; EdD, U. of Kentucky, 1974.
Merrell, Betty D. Harrison (1961) BS, MS, PhD, Brigham Young U., 1959, 1960, 1965.
Walton, Wilbur T. (1971) BA, Brigham Young U., 1957; MS, PhD, U. of Utah, 1965, 1969.
Wootton, Richard R. (1961) BS, MS, Brigham Young U., 1956, 1961; EdD, Utah State U., 1969.
Young, James R. (1971) BA, MEd, Brigham Young U., 1965, 1966; PhD, George Peabody Coll. of Vanderbilt U., 1970.

Czech

See Germanic and Slavic Languages.

Dance

Lee Wakefield, Chair
294 RB, (801) 422-5087

College of Health and Human Performance Advisement Center
203 RB, (801) 422-3638

Admission to Degree Program

The degree programs in the Department of Dance carry special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Dance is an art form expressed and communicated through human movement. Throughout history, and in every culture, people have danced. Dance incorporates the physical, mental, emotional, and spiritual aspects of each individual in creating a unique nonverbal expression of thoughts and feelings. As both process and product, dance has the power to refine neuromuscular skill, broaden understanding, increase creative potential, and expand aesthetic sensitivity. At Brigham Young University, dance celebrates the best in humankind and strives to enrich the lives of all who experience it.

The BYU Department of Dance has been accredited by the National Association of Schools of Dance (NASD) since 1989.

Career Opportunities

The majority of career opportunities in the dance field are teaching and performance related. Teaching opportunities are available in colleges and universities (for those with graduate degrees), public schools, private studios, health and fitness spas, special and adult education programs, day care centers, and recreation programs. Performing opportunities are available by audition with professional and regional companies and in theatrical, television, and film production.

Less common, but equally rewarding dance-related careers are also available in the areas of choreography and dance administration, therapy, criticism, history, research, notation, and reconstruction.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA Dance
Emphases:
Ballet
Ballroom Dance
Composite Dance
Modern Dance
BA Dance Education
(secondary teacher licensure)
BFA Music Dance Theatre
Minors Ballroom Dance
Folk Dance
Modern Dance

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Dance (on furlough)

For further information, please see the Dance Department.

General Information

The Department of Dance is made up of four divisions: Ballet, Ballroom Dance, Folk Dance, Modern Dance. These divisions work cooperatively to provide opportunities for all students at the university to develop their potential in dance.

Besides the wide variety of courses that apply toward the general education Wellness requirement, there are professional courses that develop leadership, performance, and choreographic ability in all types of dance. Performing opportunities are provided in on-campus concerts and off-campus performances with groups that tour throughout the world.

Requirements

1. Majors are counseled to maintain healthy lifestyle practices.
2. Dance technique courses (including Dance 243R and 244R) require a grade of at least B– for advancement to next level.

BA Dance: Ballet Emphasis (59.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this emphasis.

Major Requirements

1. Before being accepted into the major, a student must:
   a. Complete the following:
      Dance 241R and 390R with a grade of B– or better.
   b. Pass a dance audition for acceptance into the major. Please see the Dance Department for further details.
2. At least 30 hours from items 4 to 8 below must be completed at BYU.
3. Complete the following prerequisite course:
   PDBio 220.
4. Complete the following (qualified students may substitute higher-level technique courses for required lower-level technique courses with permission from the Department of Dance):
   Dance 231, 241R, 243R, 244R, 261, 264, 342, 343, 355, 359R, 362, 460, 461, 469.
5. Complete 16.5 hours from the following technique electives:
   Dance 390R, 391R, 393R, 490R, 493R.
6. Complete 4 hours of the following performance course:
   Dance 498R.
7. Complete the following methodology course:
   Dance 396.
8. Complete the following miscellaneous support courses:
   Dance 292, 494R, 495R.

*Hours include courses that may fulfill GE or university requirements.

BA Dance: Ballroom Dance Emphasis
(53.5–55.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this emphasis.

Major Requirements

1. Before being accepted into the major, a student must:
   a. Complete the following:
      Dance 241R, 284, and 285 with a grade of B– or better.
   b. Pass a dance audition for acceptance into the major. Please see the Dance Department for further details.
2. At least 27 hours from items 4 to 8 below must be completed at BYU.
3. Complete the following prerequisite course:
   PDBio 220.
4. Complete the following (qualified students may substitute higher-level technique courses for required lower-level technique courses with permission from the Department of Dance):
   Dance 231, 241R, 243R, 244R, 261, 264, 280, 290, 291R, 342, 343, 355, 359R, 362, 460, 461, 469, 486, 487.
5. Complete 7 hours from the following:
   Dance 284, 285, 380R, 382R, 383R, 384R, 385R, 483R, 485R.
6. Complete two semesters of performance courses from the following:
   Dance 388R, 488R, 489R.
7. Complete the following methodology course:
   Dance 386.

*Hours include courses that may fulfill GE or university requirements.

BA Dance: Composite Dance Emphasis
(55.5–56.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this emphasis.

Major Requirements

1. Before being accepted into the major, a student must:
   a. Complete the following:
      Dance 241R with a grade of B– or better.
   b. Pass a dance audition for acceptance into the major. Please see the Dance Department for further details.
   c. R courses may not be used more than once for major elective credit without approval.
2. At least 28 hours from items 4 to 8 below must be completed at BYU.
3. Complete the following prerequisite course:
   PDBio 220.
4. Complete the following (qualified students may substitute higher-level technique courses for required lower-level technique courses with permission from the Department of Dance):
   Dance 231, 241R, 243R, 244R, 261, 264, 290, 342, 343, 355, 359R, 362, 460, 461, 462, 469.
5. Complete two of the following genre clusters:
   a. Ballet: complete 5 hours from the following:
      Dance 390R, 391R, 490R.
   b. Ballroom: complete the following:
      Dance 280, 284, 285.
      And one of the following options:
      Either Dance 382R, 384R.
      Or Dance 383R, 385R.
   c. Folk: complete the following:
      Dance 273R, 370, 371, 477.
   d. Modern: complete 5 hours from the following:
      Dance 340R, 440R.
6. Complete one course from the following methodology electives:
   Dance 376, 386.
7. Complete one course from the following methodology electives:
   Dance 336, 366, 367, 396.
8. Complete 5 hours from the following dance electives:
   Any dance class not used to fulfill other requirements from Dance 200 or higher (excluding Dance 260).

*Hours include courses that may fulfill GE or university requirements.

BA Dance: Modern Dance Emphasis (59–61 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this emphasis.

Major Requirements

1. Before being accepted into the major, a student must:
   a. Complete the following:
      Dance 241R with a grade of B– or better.

b. Pass a dance audition for acceptance into the major. Please see the Dance Department for further details.

2. At least 30 hours from items 4 to 9 below must be completed at BYU.
3. Complete the following prerequisite course:
   PDBio 220.
4. Complete the following (qualified students may substitute higher-level technique courses for required lower-level technique courses with permission from the Department of Dance):
   Dance 231, 241R, 243R, 244R, 261, 264, 290, 291R, 342, 343, 355, 359R, 362, 460, 461, 469.
5. Complete 12 hours from the following:
   Dance 340R, 440R, 540R.
6. Complete two semesters of performance courses from the following:
   Dance 368R, 468R.
7. Complete the following composition course:
   Dance 462.
8. Complete the following methodology courses:
   Dance 366, 367.
9. Complete the following:
   Dance 363, 390R, 464.

*Hours include courses that may fulfill GE or university requirements.

BA Dance Education (69–71 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this major.

Major Requirements

1. Before being accepted into the major, a student must:
   a. Complete the following:
      Dance 241R with a grade of B– or better.
   b. Pass a dance audition for acceptance into the major. Please see the Dance Department for further details.
2. At least 21 hours from items 5 to 7 below must be completed at BYU.
3. A teaching minor is recommended.
4. Complete the following prerequisite course:
   PDBio 220.
5. Complete the following (qualified students may substitute higher-level technique courses for required lower-level technique courses with permission from the Department of Dance):
   Dance 241R, 243R, 244R, 261, 264, 290, 340R, 342, 343, 355, 362, 363, 366, 460, 461, 462, 464, 466, 469.
6. Complete one course from the following:
   Dance 376, 386.
7. Complete one course from the following:
   Dance 336, 367.
8. Complete the Professional Education Component (25–26 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements. (Dance 242 and 261 are prerequisite to ScEd 276R for dance majors.)

*Hours include courses that may fulfill GE or university requirements.

BFA Music Dance Theatre (74.5 hours*)

This is a limited-enrollment program requiring program admissions approval. Please see the College of Fine Arts and Communications Advisement Center for information regarding requirements for admission to this major.

The BFA in music dance theatre (MDT) is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of its School of Music and Department of Theatre and Media Arts and the College of Health and Human Performance's Department of Dance.

Major Requirements

1. Live and taped auditions for entrance into the MDT major are held in the January preceding fall registration. Students may begin the MDT major in the fall only.
2. Pass a proficiency examination in each of the three areas at the end of each semester.
3. Complete at least 40 hours in residence at BYU.
4. Any grade below C– in major courses is not acceptable for graduation. Dance technique courses require a grade of B– for advancement to the next level.
5. Complete the following:
   Music 113, 161, 261, 290.
6. Complete 4 hours of the following:
   Music 260R.
7. Complete 4 hours of the following:
   Music 360R.
8. Complete the following:
   Dance 131, 135, 231, 235, 241R, 243R, 244R, 290, 291R, 331, 361, 363, 390R.
9. Complete the following:
   TMA 114, 121, 123, 124, 229, 267, 427.
10. Complete the following MDT Seminar courses:
    Music 328.
    Dance 328.
    TMA 328.
11. Complete the following History of Music Dance Theatre courses:
    Music 300.
    Dance 300.
    TMA 300.
12. Complete the following Senior Performance Project courses:
    Music 426.
    Dance 426.
    TMA 426.
13. Complete 11.5 hours of electives from the following music, dance, or theatre courses:
    Music 186, 319R, 360R, 363, 386R, 399R, 402A, B, 472.
    Dance 331, 340R, 362, 368R, 390R, 391R, 393R, 399R, 429R, 440R, 462, 468R, 490R, 493R, 494R, 495R, 498R, 540R, 562R, 563R.
    TMA 100, 215R, 223, 224, 225, 236, 322, 324, 325, 329, 336, 399R, 420R, 422, 424, 425, 429, 443R, 515R.

*Hours include courses that may fulfill GE or university requirements.

Minor Ballroom Dance (15 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this minor.

Minor Requirements

1. Before being accepted into the minor, a student must complete the following:
   Dance 284, 285 with a grade of B– or better.
2. At least 10 hours must be completed at BYU.
3. Complete the following core courses:
   Dance 260, 280, 284, 285.
4. Complete one course from the following:
   Dance 386, 486, 487.
5. Complete 5 hours from the following:
   Dance 380R, 382R, 383R, 384R, 385R, 483R, 485R.

   Note: No more than 2 hours may be completed from each of the listed R technique courses.
6. Complete 2 hours from the following:
   Dance 388R, 488R.

*Hours include courses that may fulfill GE or university requirements.

Minor Folk Dance (14.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this minor.

Minor Requirements

1. Before being accepted into the minor, a student must:
   a. Complete the following:
      Dance 270 with a grade of B– or better.
   b. Pass a dance audition for acceptance into the minor. Please see the Dance Department for further details.
2. At least 10 hours must be completed at BYU.
3. Complete the following core courses:
   Dance 260, 270, 271, 370.
4. Complete the following:
   Dance 172, 376, 477.
5. Complete two courses from the following:
   Dance 131, 140, 180, 190.
6. Complete 2 hours from the following:
   Dance 273R (no more than 1 hour may be taken in any one ethnic style).
7. Complete 2 hours from the following:
   Dance 371, 373R, 378R.

   Note: Dance 373R and 378R may not be taken more than once for credit toward the minor.

*Hours include courses that may fulfill GE or university requirements.

Minor Modern Dance (19.5–21 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this minor.

Minor Requirements

1. Before being accepted into the minor, a student must:
   a. Complete the following:
      Dance 241R with a grade of B– or better.
   b. Pass a dance audition for acceptance into the minor. Please see the Dance Department for further details.
2. At least 10.5 hours must be completed at BYU.
3. Complete the following core courses:
   Dance 241R, 260, 264, 290.
4. Complete the following:
   Dance 243R, 244R, 362, 363.
5. Complete 2 hours from the following:
   Dance 365, 366, 367.
6. Complete one course from the following:
   Dance 231, 340R, 365, 366, 367, 368R, 462, 468R.

   Note: R-suffix courses may not be taken more than once for minor credit.

Dance (Dance)

Undergraduate Courses

130. Aerobic Dance. (0.5:0:2) Independent Study also.
Dance and other rigorous activities performed to music to attain cardiovascular fitness.

131. Jazz Dance, Beginning. (0.5:0:2)

132. Precision Dance, Beginning. (0.5:0:2)
Various styles including marching, jazz, military, novelty.

134R. Specialty Dance. (0.5:0:2 ea.)

135. Tap Dance, Beginning. (0.5:0:2)

140. Modern Dance, Beginning. (0.5:0:2)

164. Movement for Musicians. (0.5:0:2)
Developing strength, flexibility, responsiveness, centering, breath, and freedom of movement through both fine and gross motor activities.

170. World Dance, Beginning. (0.5:0:2)
Dances from selected cultures at the beginning skill level.

171. Clog Dance, Beginning. (0.5:0:2)
Beginning steps and technique, emphasizing slide/drag.

172. Country Western and Square Dance. (0.5:0:2)
Fundamental dance skills in western styles of country, round, and square dance.

173R. Ethnic Dance, Beginning. (0.5:0:2 ea.)
Ethnic dances selected from the Irish, Polynesian, or Spanish cultures.

180. Social Dance, Beginning. (0.5:0:2) Independent Study also.
Traditional and popular ballroom dance; also social skills.

181. Country Western Social Dance, Beginning. (0.5:0:2)
Beginning popular country western dance.

184. Ballroom Dance, International Standard, Beginning. (0.5:0:2)
Bronze level. Waltz, fox-trot, tango, quickstep.

185. Ballroom Dance, International Latin, Beginning. (0.5:0:2)
Bronze level. Cha-cha, rumba, samba, jive, paso doble.

190. Ballet, Beginning. (0.5:0:2)
Fundamentals of ballet technique for those with little or no previous training.

229R. Dance Performance 1. (1–3:Arr.:Arr. ea.) Prerequisite: production director's consent.
Participation as dancers in concert dance production.

231. Jazz Dance Technique 1. (1:0:3) Prerequisite: Dance 131 or equivalent; 240R or 290.

235. Tap Dance Technique 1. (1:0:3) Prerequisite: Dance 135 or equivalent.

240R. Modern Dance Technique and Theory 1. (1.5:0:4.5 ea.)
Fundamental dance skills and basic theories.

241R. Modern Dance Technique and Theory 2. (2.5:0:7.5 ea.) Prerequisite: experience in modern dance equivalent to Dance 240R; instructor's consent.

243R. Studio Workshop in Modern Dance Technique and Theory. (2.5:0:7.5 ea.) Prerequisite: Dance 241R or equivalent; instructor's consent; concurrent enrollment in Dance 244R the first time taken.
Technique and theory in a workshop setting.

244R. Studio Workship in Modern Dance Improvisation and Composition. (1:0:3 ea.) Prerequisite: Dance 241R or equivalent; instructor's consent; concurrent enrollment in Dance 243R the first time taken.
Beginning improvisation and composition in a workshop setting.

260. Introduction to Dance. (3:3:0) Honors also.
Critical analysis of dance as a cultural and expressive art, including relationship of dance to other art forms. No previous experience in dance required.

261. Orientation to Dance. (3:3:0)
Introduction to dance as a discipline and at Brigham Young University.

264. Music for Dancers. (2:1:2)
Basic music notation, simple and complex rhythmic patterns, and polyrhythms; analysis of selected international music styles; brief historical survey.

270. World Dance Technique 1. (1:0:3) Prerequisite: Dance 170 or equivalent.
Techniques of selected traditional, folk, and national dance styles.

271. Clog Dance Technique 1. (1:0:3) Prerequisite: Dance 171 or equivalent.
Intermediate steps and technique; buck styling; introduction to choreography.

273R. Ethnic Dance Technique 1. (1:0:3 ea.)
Accelerated ethnic dance techniques selected from the Chinese, Hungarian, Irish, Polynesian, Spanish, or Ukrainian cultures.

280. Social Dance, Intermediate. (1:0:3) Prerequisite: Dance 180 or equivalent.

281. Country Western Social Dance, Intermediate. (1:0:3) Prerequisite: Dance 172, 181, or equivalent.
Intermediate-level instruction in popular country western dances.

284. Ballroom Dance, International Standard, Technique 1. (1:0:3) Prerequisite: Dance 184 or equivalent.
Silver level. Waltz, fox-trot, tango, quickstep.

285. Ballroom Dance, International Latin, Technique 1. (1:0:3) Prerequisite: Dance 185 or equivalent.
Silver level. Cha-cha, rumba, samba, jive, paso doble.

290. Ballet Accelerated Technique 1. (2.5:0:7.5)

291R. Ballet Technique 2. (1:0:3 ea.) Prerequisite: Dance 290 or equivalent.

292. Character Dance. (1:0:3)
Male and female techniques of traditional national folk forms stylized with classical ballet discipline.

293R. Ballet Pointe, Beginning. (0.5:0:1 ea.) Prerequisite: concurrent enrollment in Dance 291R.

300. History of Music Dance Theatre. (1:1:0) Prerequisite: Music 290; Dance 243R, 244R; TMA 114; concurrent enrollment in Music 300, TMA 300. Recommended: concurrent enrollment in Music 328, Dance 328, TMA 328.
Dance in the Western tradition from classical antiquity to present, emphasizing union of music, dance, and theatre.

326. Rhythm and Dance. (2:1:2)
Methodology course for elementary education majors; creative dance and structured rhythmic dance forms.

328. Junior Music Dance Theatre Seminar. (1:Arr.:Arr.) Prerequisite: music dance theatre BFA major status; TMA 114, 229; concurrent enrollment in Music 328, TMA 328. Recommended: concurrent enrollment in Music 300, Dance 300, TMA 300.
Intensive integration of music, dance, and theatre for the performer.

331. Jazz Dance Technique 2. (1.5:0:4.5) Prerequisite: Dance 231 or equivalent; 241R, 242, or 291R.

332R. Precision Dance, Performance. (2:0:14 ea.) Prerequisite: audition.
Cougarettes performing company.

335. Tap Dance Technique 2. (1:0:3) Prerequisite: Dance 235 or equivalent.

336. Aerobic Dance Teaching Techniques. (1:2:2) Prerequisite: Dance 342 or PE 362; Dance 343 or PE 363. Recommended: NDFS 100.

340R. Modern Dance Technique and Theory 3. (2.5:0:7.5 ea.) Prerequisite: Dance 243R or equivalent experience in modern dance; instructor's consent.

342. Kinesiology and Related Sciences for Dancers. (4:4:0) Prerequisite: PDBio 220.
Study and analysis of the neuromusculoskeletal system in practical application to dance for more efficient use of the body and reduction of injuries.

343. Principles of Somatics and Conditioning. (3:1:3) Prerequisite: Dance 342.
Approach to movement training that emphasizes body patterning and conditioning, based on individual assessment of movement tendencies and training needs.

355. Dance Production, Introduction. (2:2:1)
Principles and practices of technical aspects of dance production.

356. Rhythmic Activities Through Dance. (2:2:2) F Prerequisite: physical education K–12 major status.
Structured dance forms for the physical education public school teacher: folk dance, aerobic dance, and American social dance styles. Methodology.

358R. Dance Improvisation Performance. (2:0:6 ea.) Prerequisite: audition.
Impulse dance company experiences in improvisation as a performing art.

359R. Special Topics and Issues. (2:2:0 ea.) Prerequisite: Dance 261.
Seminar with rotating topics and issues selected from: dance and health, dance and identity, dance and technology, and dance philosophy and aesthetics.

361. Music Dance Theatre Choreographic Styles. (2:0:6) Prerequisite: Dance 231, 235, 243, 244, 291R, TMA 229.
Physical and conceptual aspects of dance styles as they relate to music dance theatre.

362. Dance Composition, Intermediate. (2:0:4) Prerequisite: Dance 244R.
Fundamental compositional structure emphasizing visual, kinesthetic, and musical aspects.

363. Dance Improvisation, Intermediate. (1:0:3) Prerequisite: Dance 244R.

365. Dance Movement Education for Elementary School Teachers. (1:1:2)
Theory and teaching experience in creative movement for preschool and elementary school children.

366. Modern Dance Teaching Methods. (2:2:2) Prerequisite: Dance 243R, 244R, or equivalents; Dance 261.
Planning, teaching, and evaluating lessons.

367. Methods of Teaching Children's Creative Dance. (1:2:1) Prerequisite: Dance 243R, 244R.

368R. Modern Dance Choreography and Performance. (1:1:2 ea.) Prerequisite: audition.
Dancensemble dance company experiences in modern dance choreography and performance for concert settings.

370. World Dance Technique 2. (1:0:3) Prerequisite: Dance 270.
In-depth dance technique of selected traditional, folk, and national dance styles.

371. Clog Dance Technique 2. (1:0:3) Prerequisite: Dance 271 or equivalent.
Advanced technique and steps; buck and Canadian styling and free styling.

373R. Ethnic Dance Technique 2. (1:0:3 ea.) Prerequisite: Dance 273R or equivalent.
Advanced ethnic dance techniques selected from the Chinese, Hungarian, Irish, Polynesian, Spanish, or Ukrainian cultures.

376. Methods of Teaching World Dance. (1:1:2) Recommended: Dance 170 or equivalent.

378R. Folk Dance Performance, Intermediate. (1:0:3 ea.) Prerequisite: audition.
Performance techniques and experience in folk dance.

380R. Social Dance, Advanced. (1:0:3 ea.) Prerequisite: Dance 280 or equivalent.

382R. Ballroom Dance, International Standard, Technique 2. (1:0:3 ea.) Prerequisite: Dance 284 or equivalent; instructor's consent.
Gold 1 level. Waltz, tango, fox-trot, quickstep.

383R. Ballroom Dance, International Latin, Technique 2.(1:0:3 ea.) Prerequisite: Dance 285 or equivalent; instructor's consent.
Gold 1 level. Cha-cha, samba, rumba, paso doble.

384R. Ballroom Dance, International Standard, Technique 3. (1:0:3 ea.) Prerequisite: Dance 382R or equivalent; instructor's consent.
Gold 2 level. Waltz, fox-trot, tango, quickstep.

385R. Ballroom Dance, International Latin, Technique 3 (1:0:3 ea.) Prerequisite: Dance 383R or equivalent; instructor's consent.
Gold 2 level. Cha-cha, rumba, samba, jive, paso doble.

386. Methods of Teaching Social Dance. (2:0:5) Recommended: Dance 180 or equivalent.

388R. Ballroom Dance Performance, Intermediate. (1:0:3 ea.) Prerequisite: audition.
Performance techniques and experience in ballroom dance.

390R. Ballet Technique 3. (1.5:0:4.5 ea.) Prerequisite: audition.

391R. Ballet Technique 4. (2.5:0:7.5 ea.) Prerequisite: audition.

393R. Ballet Pointe, Intermediate. (1:0:3 ea.) Prerequisite: concurrent enrollment in Dance 391R.

396. Ballet Methodology. (2:2:2) Prerequisite: Dance 390R or equivalent.
Teaching classical ballet from preballet through advanced; includes analysis of Bournonville, Cecchetti, Vaganova, RAD, Kneeland, and SAB methods.

399R. Academic Internship: Dance. (1–4:0:50 ea.)

426. Music Dance Theatre: Senior Performance Project. (1:0:6) Prerequisite: TMA 361; concurrent enrollment in Music 426, TMA 426.
Participation in an MDT performance group culminating in a showcase for agents and directors in New York City during April.

429R. Dance Performance 2. (1–3:Arr.:Arr. ea.) Prerequisite: production director's consent.
Participation as dancers in concert dance production.

440R. Modern Dance Technique and Theory 4. (2.5:0:7.5 ea.) Prerequisite: Dance 340R or equivalent; instructor's consent.

460. Dance History 1. (2:2:0)
Tribal cultures, ancient, and medieval historical periods, emphasizing dance of Western civilization.

461. Dance History 2. (2:2:0)
Renaissance through modern historical periods, emphasizing dance of Western civilization.

462. Dance Composition, Advanced. (1:0:3) Prerequisite: Dance 362.
Creation and presentation of complete choreographic works.

464. Dance Accompaniment. (1:1:1) Prerequisite: Dance 264.

466. Dance Teaching Practicum. (1:1:2)
Pre–student teaching course giving students practical teaching experience in a mentored environment. A discussion lab integrates theory and experience.

468R. Modern Dance Performance Company. (2:0:12 ea.) Prerequisite: audition.
Performance techniques and experience with The Dancers' Company.

469. Senior Seminar in Dance. (2:0:Arr.) Prerequisite: Dance 462 for all dance education majors and for composite dance and modern dance emphasis majors who choose to do a choreographic project.

477. Dance—A Reflection of Culture. (2:2:0) Prerequisite: Dance 376.
Study of dance as an expression of culture.

478R. Folk Dance Performance Company. (1.5–2:0:5–7 ea.) Prerequisite: audition.
Performance techniques with International/American Folk Dance Ensemble.

483R. Ballroom Dance, International Standard, Technique 4. (1:0:3 ea.) Prerequisite: Dance 384R or equivalent; instructor's consent.
Gold bar level: waltz, tango, fox-trot, quickstep, Viennese waltz.

485R. Ballroom Dance, International Latin, Technique 4. (1:0:3 ea.) Prerequisite: Dance 385R or equivalent; instructor's consent.
Gold bar level: cha-cha, rumba, samba, jive, paso doble.

486. Theory and Notation of Ballroom Dance, International Standard. (2:0:4) Prerequisite: Dance 384R.
Theory and notation of International Standard Ballroom Dance and preparation for professional teaching certification examinations.

487. Theory and Notation of Ballroom Dance, International Latin. (2:0:4) Prerequisite: Dance 385R.
Theory and notation of International Latin Dance and preparation for professional teaching certification examinations.

488R. Ballroom Dance Performance Company. (2:0:6–8 ea.) Prerequisite: audition.
Performance techniques and experience with BYU Ballroom Dance Company.

489R. Preparation for Ballroom Dance Competitions. (1:0:2)
Creation and presentation of ballroom competitive routines, emphasizing visual and musical aspects.

490R. Ballet Technique 5. (2.5:0:7.5 ea.) Prerequisite: audition.

493R. Ballet Pointe, Advanced. (1:0:1–2 ea.) Prerequisite: concurrent enrollment in Dance 490R.

494R. Ballet Variations. (1:0:1–2 ea.) Prerequisite: Dance 391R and 393R or equivalents.

495R. Pas de Deux. (1:0:1–2 ea.) Prerequisite: audition.
Ballet partnering techniques.

498R. Ballet Performance Company. (2:0:9–13 ea.) Prerequisite: audition and concurrent enrollment in Dance 490R; 493R (females only) and 494R or 495R.
Performance technique and experience with BYU Theatre Ballet.

500-Level Graduate Courses (available to advanced undergraduates)

500R. Workshop in Dance. (1–3:Arr.:Arr. ea.)
Experience with Workshop in Dance: aerobic, ballet, ballroom, folk, or modern.

540R. Modern Dance Technique and Theory 5. (2:0:5 ea.)
Prerequisite: Dance 340R or instructor's consent.
Advanced technique, with movement combinations emphasizing dance as a performance art.

555. Dance Production. (2:2:2) Prerequisite: Dance 355 or equivalent.
Technical aspects of dance production.

562R. Modern Dance Composition, Advanced. (1:0:4 ea.)
Prerequisite: Dance 362 or instructor's consent.
Development of substantive modern dance compositional works based on intent, form, and content relationships.

563R. Modern Dance Improvisation, Advanced. (1:0:4 ea.)
Prerequisite: Dance 363 or instructor's consent.
Developing advanced skills of immediate movement response to enhance nonverbal communication.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Dance Faculty

Professors
Black, Catherine H. (1972) BPE, U. of Alberta, Canada, 1968; MFA, U. of Utah, 1972.
Davis, Susanne Johnson (1974) BS, MS, Brigham Young U., 1967, 1971.
Debenham, Hadd Patrick (1976) BS, Brigham Young U., 1973; MA, U. of California, Los Angeles, 1976.
Gibb, Sara Lee (1965) BA, MS, Brigham Young U., 1959, 1970.

Associate Professors
Allen, Sandra Birch (1969) BFA, MFA, U. of Utah, 1964, 1967.
Austin, Edwin G. (1984) BS, MA, Brigham Young U., 1978, 1980.
Berrett, Marilyn (1985) BA, U. of Utah, 1979; MA, Brigham Young U., 1984.
Phillips, Rebecca (1994) BA, Brigham Young U., 1987; MFA, U. of Utah, 1990.
Prohosky, Caroline (1986) BS, Brigham Young U., 1972; MA, U. of California, Los Angeles, 1980.
Wakefield, B. Lee (1980) BA, MA, Brigham Young U., 1977, 1982.

Assistant Professors
Creer-King, Jennie (1999) BFA, MFA, U. of Utah, 1994, 1999.
Dijkwel, Jan (1998) BA, Amsterdam Coll., 1988; MA, Allegheny U., 1998.
Holman, Curt (1993) BA, MA, Brigham Young U., 1989, 1996.
Musil, Pam (1993) BA, MA, Brigham Young U., 1978, 1985.
Robinson, Raymond (1998) BA, Brigham Young U., 1996; MFA, U. of Utah, 1998.
West, Colleen Anderson (1993) BA, MA, Brigham Young U., 1983, 1985.

Part-Time Faculty
Senior Lecturers: Ric Chitwood, Marci Edgington, Jiamin Huang, Christine Ollerton, Delynne Peay, Kathleen Sheffield, Linda Wakefield.
Associate Lecturers: Vickie Austin, Jacque Bell, Jeanette Geslison, Claudia Hill, Sharon Holman, Amy Lives, Shani Olson, Marsha Russell, Susan Wood.
Assistant Lecturers: Tara Christopher, Elaine Grenko, Gary Larsen, Jodi Maxfield, Jana Shumway, Lisa Stoddard, Christopher Stubbs, Lynne Thompson.
Instructors: Wendy Asay, Mahnia Burke, Amy Markgraf, Tina Shelley, Kau'i Tuia, Jennifer White.

Emeriti
Jensen, Mary Bee (1952) BA, Park Coll., 1939; MA, Brigham Young U., 1963.
Lyman, Emerson S. (1973) BS, MA, Brigham Young U., 1957, 1968; EdS, U. of Utah, 1972.

Danish

See Center for Language Studies.

Design

See Visual Arts.

Dutch

See Germanic and Slavic Languages.

Early Childhood Education

See Teacher Education.

Economics

James B. McDonald, Chair
130 FOB, (801) 422-3463

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of Economics are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Economics examines how societies choose to allocate scarce resources among competing uses. A broad range of contemporary policy issues are studied in fields such as natural resource economics; economic development and growth; international trade and finance; economic history; the organization of industries; the development and efficiency of law; business cycles; labor markets; and public and private finance.

Career Opportunities

Professional economists work in three basic areas: business, government, and academics. Undergraduates generally pursue training beyond their BS/BA in economics if they wish to become professional economists.

Those in business forecast and analyze various aspects of the economy or of particular markets and most often work for banks, insurance companies, large manufacturing firms, brokerage firms, and business or economic consulting firms.

Those in government accumulate, interpret, and analyze national and international data in support of policy development and work for agencies such as the U.S. State Department, Treasury Department, Bureau of Labor Statistics, and Office of the Trade Representative; for state planning bodies and regulatory commissions; or for international bodies like the World Bank or IMF.

Academic economists teach and conduct research at colleges and universities. Entry into these positions requires training at least as far as the master's level; for the most part, the professional degree is the PhD.

Undergraduates who are not interested in postundergraduate study in economics generally pursue one of three options: graduate training in a profession (e.g., the MBA, MPA, JD, or MD); employment with a business consulting, economic consulting, brokerage, or other specialized service provider that relies to a substantial degree on economic analysis; or employment with a government agency or entity that relies on economic analysis and data. In the latter two areas, those with BAs typically gather and analyze data and provide research support under the direction of professional staff economists. A BA/BS in economics is also very good preparation for those interested in foreign service careers or work with organizations in economic development, international finance, or actuarial licensing. Many undergraduates pursue business careers, including those of finance, marketing, sales, and production.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA Economics
BS Economics
Minor Economics

Students should see their college advisement center for help or information concerning the undergraduate programs.

BA Economics (40–57 hours*)

Major Requirements

1. Minimum residence requirement is 21 hours in the major.
2. Major courses: complete the following:
   Econ 110, 378 (or equivalent), 380, 381, 382, 388.

   Note: Equivalence to Econ 378 includes Stat 321 and either Stat 322 or Math 343.
3. Supporting courses: complete the following:
   Math 112 (Math 119 with a B+ or better may be substituted).

   Note: Math 113, 214, and 343 are strongly recommended in addition to Math 112 for students contemplating graduate work in economics.

4. Complete GE Foreign Language or 7 hours of mathematics in addition to Math 112.
5. Complete 15 hours from the following (at least 12 hours must be from courses 410–588):
   Econ 210, 213R, 215, 230, 240, 253, 257, 274, 275, 410, 413R, 415, 420, 421, 430, 440, 450, 453, 458, 459, 463, 465, 468, 474, 475, 476, 478, 486, 580, 581, 582, 586, 588.

   Note 1: The 200-level field courses are intended as interim courses as a student moves from Econ 110 into the 300-level core courses. Once the student has completed Econ 380, he or she is strongly encouraged to take the 400-level rather than the 200-level field courses.

   Note 2: Students should not take both a 200-level and a 400-level course with the same last two digits (e.g., Econ 275 and 475), although they are encouraged to take the 300- and 500-level theory classes (e.g., Econ 380 and 580).

*Hours include courses that may fulfill GE or university requirements.

BS Economics (37 hours*)

Major Requirements

1. Minimum residence requirement is 21 hours in the major.
2. Major courses: complete the following:
   Econ 110, 378 (or equivalent), 380, 381, 382, 388.

   Note: Equivalence to Econ 378 includes Stat 321 and either Stat 322 or Math 343.
3. Supporting courses: complete the following:
   Math 112 (Math 119 with a B+ or better may be substituted).

   Note: Math 113, 214, and 343 are strongly recommended in addition to Math 112 for students contemplating graduate work in economics.
4. Complete 15 hours from the following (at least 12 hours must be from courses 410–588):
   Econ 210, 213R, 215, 230, 240, 253, 257, 274, 275, 410, 413R, 415, 420, 421, 430, 440, 450, 453, 458, 459, 463, 465, 468, 474, 475, 476, 478, 486, 580, 581, 582, 586, 588.

   Note 1: The 200-level field courses are intended as interim courses as a student moves from Econ 110 into the 300-level core courses. Once the student has completed Econ 380, he or she is strongly encouraged to take the 400-level rather than the 200-level field courses.

   Note 2: students should not take both a 200-level and a 400-level course with the same last two digits (e.g., Econ 275 and 475), although they are encouraged to take the 300- and 500-level theory classes (e.g., Econ 380 and 580).

*Hours include courses that may fulfill GE or university requirements.

Minor Economics (18 hours*)

Minor Requirements

1. Complete the following:
   Econ 110, 380, 381.
2. Complete 9 additional hours in economics courses.

*Hours include courses that may fulfill GE or university requirements.

Economics (Econ)

Undergraduate Courses

110. Economic Principles and Problems. (3:3:0) Honors and Independent Study also.
Strengths and weaknesses of markets and governments for solving problems of social organization or conflict, including policy response to inflation, unemployment, pollution, poverty, growth, etc.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: faculty advisor's and department chair's prior written consent.
Not counted toward required major or minor hours.

210. Introduction to Agricultural Economics. (3:3:0) Prerequisite: Econ 110 or equivalent.
Economic principles and policies applied to producing and allocating agricultural products.

213R. Topics in Economic Analysis. (1–3:Arr.:Arr. ea.) Prerequisite: Econ 110 or equivalent.

215. History of Economic Thought. (3:3:0) Prerequisite: Econ 110 or equivalent.
Development of economic doctrines from preclassical through contemporary economics. Contributions of individual writers and schools of thought.

230. Economic Development. (3:3:0) Prerequisite: Econ 110 or equivalent.
Problems and processes of economic growth and development, emphasizing less-developed nations.

240. Introduction to Natural Resource and Environmental Economics. (3:3:0) Prerequisite: Econ 110 or equivalent.
Applying basic economic principles to the proper allocation of natural resources; our relationship to the environment.

253. Money and Banking. (3:3:0) Prerequisite: Econ 110 or equivalent.
Economic principles applied to monetary analysis and policy and the banking structure.

257. International Trade and Finance. (3:3:0) Prerequisite: Econ 110 or equivalent.
Economic analysis of the mechanisms, problems, institutions, and policies of trade among countries. Financial and monetary arrangements that facilitate trade.

265. Introduction to Health Economics. (3:3:0) Prerequisite: Econ 110 or equivalent.
Applying economic principles to markets for health and health care.

274. American Economic History. (3:3:0) Prerequisite: Econ 110 or equivalent.
Impact on households, firms, and government of America's transformation from a rural, agricultural colony to a major industrial nation.

275. Public Finance. (3:3:0) Prerequisite: Econ 110 or equivalent.
Economics of decision making in the public sector; cost-benefit analysis and efficiency-equity issues of taxation and expenditure policies.

280. Introduction to Economic Analysis and Reasoning. (3:3:0) Prerequisite: Econ 110 or equivalent. Not for majors or major credit.
Maximizing self-interest model of behavior and the environment, and constraints within which business and household decisions are made.

378. Statistics for Economists. (3:3:0) Prerequisite: Econ 110, Math 112.
Introduction to matrix algebra and statistics concluding with simple regression analysis. Other topics include: probability, random variables, density and distribution functions, estimation, hypothesis testing.

380. Intermediate Price Theory 1. (3:3:0) Prerequisite: Econ 110; Math 112.
Producer, consumer, and equilibrium theories; mathematical techniques of unconstrained and constrained optimization introduced and applied extensively.

381. Intermediate Macroeconomics. (3:3:0) Prerequisite: Econ 110; Math 112 or concurrent enrollment.
Intermediate macroeconomic theory, emphasizing income, unemployment, and price-level analysis.

382. Intermediate Price Theory 2. (3:3:0) Prerequisite: Econ 380.
Welfare theory, imperfect information, imperfect competition, uncertainty, externalities, and public goods.

388. Introduction to Econometrics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Mathematical and statistical techniques used in estimating, predicting, and testing hypotheses associated with quantifiable economic relationships.

410. Agricultural Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Application of supply and demand concepts to price determination and analysis in agricultural markets.

413R. Topics in Economic Theory. (1–5:Arr.:Arr. ea.) Prerequisite: Econ 378 or equivalent, 380, 381, and/or 382, depending on topic.

415. History of Economic Thought. (3:3:0) Prerequisite: Econ 380, 381.

420. Economics of Antitrust Law and Regulation. (3:3:0) Prerequisite: Econ 380. Recommended: Econ 382.
Economic analysis of reasons for—and effects of—antitrust laws and regulation in selected areas, including utilities, telecommunications, transportation, energy, health, safety, and the environment.

421. Law and Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Common law allocative mechanisms (contract, tort, and property law) as alternatives to collective intervention when markets fail; consideration of economic logic of law.

430. Economic Growth and Development. (3:3:0) Prerequisite: Econ 380, 381.

440. Natural Resources and Environmental Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Economic theory applied to allocation of natural resources and environmental amenities. Issues relating to externalities, common property resources, public goods, allocation of depletable natural resources over time, economic factors of environmental polarization, and others.

450. Financial Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380, 382.
Theory of financial economics, emphasizing capital markets, investment decisions, choice, capital asset pricing model, futures and options markets, efficient markets, and capital structures.

453. Monetary Theory and Policy. (3:3:0) Prerequisite: Econ 380, 381.
Macroeconomic aspects of money demand, money supply, the monetary transmission mechanism, central bank policy, and other current issues.

458. International Trade Theory and Applications. (3:3:0) Prerequisite: Econ 380, 381.
Analysis of the theory of exchange, specialization, and trade, focusing on nature of the allocational problem when distinct economies interact.

459. International Monetary Theory. (3:3:0) Prerequisite: Econ 378 or equivalent, 380, 381.
Monetary and macroeconomic aspects of international relations dealing primarily with short-run balance-of-payments disequilibrium and adjustments.

463. Economics of the Labor Market. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.

465. Health Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 382.
Economic models of health-care markets, including the supply and demand for health and health care, insurance, market imperfections, public-sector involvement, and regulation.

468. Urban Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Economic models relating to spatial location of economic activities and development of cities. Application of economic theory to problems and policies associated with housing, urban transportation, congestion, local government finance, and other urban problems.

474. Topics in Economic History. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.

475. Public Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380, 382.

476. Industrial Organization. (3:3:0) Prerequisite: Econ 378 or equivalent, 380, 382.

478. Game Theory and Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Application of game theory to study strategic interaction between individuals and organizations. Applications include imperfect competition, insurance markets, and bargaining.

486. Mathematical Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Further development of optimization and comparative statics. Differential equations and dynamic analysis.

490. Senior Paper. (1:0:0) Prerequisite: instructor's consent.

498R. Readings in Economics. (1–2:Arr.:0 ea.) Prerequisite: instructor's consent.
P/F grade only; maximum of 2 credit hours; 3 hours of reading per week required for each credit hour taken. Not counted toward required major hours.

499R. Honors Thesis. (1–6:0:0 ea.) Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

580. Advanced Price Theory. (3:3:0) Prerequisite: Econ 378, 380, 382; or equivalents.
Individual behavior and markets.

581. Advanced Macroeconomics. (3:3:0) Prerequisite: Econ 378, 380, 381, 382; or equivalents.
Theory of determining national income, employment, inflation, and interest rates. Issues of economic fluctuations, economic growth, and monetary and fiscal policy.

582. Welfare Economics. (3:3:0) Prerequisite: Econ 378, 380, 382; or equivalents.
General equilibrium theorems and considerations that must guide applied economic work and provide quantitative information on the effects of alternative policy measures.

586. Mathematical Economics. (3:3:0) Prerequisite: Econ 380, 381, 382; or equivalents.
Mathematical modeling of economic behavior.

588. Econometrics. (3:3:0) Prerequisite: Econ 378, 380, 381, 382, 388; or equivalents.
Theory and practice of formulating, estimating, and analyzing economic models.

599R. Academic Internship: Supervised Management and Training. (2–6:0:Arr. ea.) Prerequisite: course work pertinent to proposed experience.

Economics Faculty

Professors

Butler, Richard J. (1990) BA, U. of Utah, 1973; MA, PhD, U. of Chicago, 1979.
Jensen, Farrell E. (1982) BS, Utah State U., 1964; MS, PhD, Kansas State U., 1966, 1972.
Kearl, J. R. (1975) BA, Utah State U., 1971; PhD, Massachusetts Inst. of Technology, 1975.
Lambson, Val E. (1989) BA, Brigham Young U., 1979; MA, PhD, U. of Rochester, 1982, 1983.
McDonald, James B. (1972) BS, MS, Utah State U., 1964, 1967; PhD, Purdue U., 1970.
Pope, C. Arden, III (1984) BS, Brigham Young U., 1978; MS, PhD, Iowa State U., 1981.
Pope, Clayne L. (1970) BA, Brigham Young U., 1965; MA, PhD, U. of Chicago, 1968, 1972.
Pope, Rulon D. (1982) BS, Brigham Young U., 1971; PhD, U. of California, Berkeley, 1976.
Ransom, Michael R. (1988) BA, Brigham Young U., 1977; MA, PhD, Princeton U., 1980, 1983.
Spencer, David E. (1986) BA, Brigham Young U., 1971; MS, PhD, Texas A&M U., 1973, 1974.
Wimmer, Larry T. (1963) BS, Brigham Young U., 1960; MA, PhD, U. of Chicago, 1962, 1968.

Associate Professors

Eide, Eric R. (1993) BS, MS, Brigham Young U., 1988, 1989; PhD, U. of California, Santa Barbara, 1993.
Jensen, Mark J. (2001) BA, Weber State U., 1988; MA, PhD, Washington U., 1989, 1994.
Phillips, Kerk L. (1992) BS, Brigham Young U., 1986; MA, PhD, U. of Rochester, 1990, 1991.
Showalter, Mark H. (1991) BA, Brigham Young U., 1986; PhD, Massachusetts Inst. of Technology, 1991.

Assistant Professors

Bradford, Scott C. (1998) BA, Brigham Young U., 1987; MPA, Princeton U., 1991; PhD, Harvard U., 1998.
Cardon, James H. (1996) BA, Brigham Young U., 1992; MA, PhD, Princeton U., 1995, 1996.
Garner, Phillip D. (2002) BA, Brigham Young U., 1997; PhD, Brown U., 2002.
Lefgren, Lars J. (2001) BA, Brigham Young U., 1996; PhD, U. of Chicago, 2001.
Mackay, Bret P. (2001) BS, U. of Utah, 1992; MA, PhD, U. of Washington, 1996, 1999.
Thurston, Norman K (1995) BA, Brigham Young U., 1990; MA, PhD, Princeton, 1993, 1995.

Adjunct Assistant Professor

Wilson, Sven E. (1997) BA, Brigham Young U., 1989; MA, PhD, U. of Chicago, 1992, 1997.

Emeriti

Clark, Wayne Walter (1962) BA, Brigham Young U., 1952; PhD, Texas A&M U., 1960.
Corbridge, Ivan L. (1952) BA, Utah State U., 1946; MS, U. of Chicago, 1948; PhD, Washington State U., 1952.
Dutton, Dean S. (1968) BA, U. of Utah, 1964; MA, PhD, Michigan State U., 1966, 1968.
Gardner, B. Delworth (1986) BS, MS, U. of Wyoming, 1952, 1954; PhD, U. of Chicago, 1960.
Infanger, Carlton A. (1964) PhD, Montana State U., 1964.
James, Sydney C. (1983) BS, MS, Utah State U., 1953, 1957; PhD, Oregon State U., 1960.
Nelson, Glen T. (1955) BS, MS, Utah State U., 1942, 1948; PhD, U. of Illinois, 1950.
Park, William Laird (1977) BS, MS, Utah State U., 1957, 1958; PhD, Cornell U., 1963.

Educational Leadership and Foundations

E. Vance Randall, Chair
306 MCKB, (801) 422-4291
E-mail: vance_randall@byu.edu
Internet: http://www.byu.edu/edlf
Fax: (801) 422-0196

Graduate Programs and Degrees

MEd	Educational Leadership
EdD	Educational Leadership
PhD	Educational Leadership

For more information see the BYU 2003–2004 Graduate Catalog.

Educational Leadership and Foundations (EdLF)

Undergraduate Courses

362. Introduction to Comparative and International Development Education. (3:3:0) F
Methods, major concepts, and current trends in comparative and international develpment education; role of education in promoting national development.

363. Educational and Community Development. (3:3:0) W
Analyzing basic policy in education; community and national development through the perspective of political science, economics, and sociology.

390R. Special Topics in Education. (1–3:Arr.:Arr. ea.) On dem.
Various topics dealing with educational issues.

399R. Academic Internship. (1–9:0:0 ea.) F, W, Sp, Su Prerequisite: departmental consent.
On-the-job experience and training under the guidance of a mentor.

452. Foundations of Education. (2:2:0) F, W, Sp, Su
Introduction to the philosophical, sociological, and historical foundations of American education, with special reference to current issues in U.S. public schooling.

494R. Independent Readings. (1–3:0:0 ea.) F, W, Sp, Su
Prerequisite: departmental consent.
Readings in education.

495R. Independent Research. (1–3:0:0 ea.) F, W, Sp, Su
Prerequisite: departmental consent.
Student research mentored by faculty member.

500-Level Graduate Courses (available to advanced undergraduates)

515R. Special Topics in Education. (1–3:3:1 ea.) F, W, Su Credit earned in 515R is not counted toward graduate degrees.

530. School and Community Programs in Education. (2:2:0)
Examination of programs in school and community for enhancement of teaching and learning.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Educational Leadership and Foundations Faculty

Professors

Holsinger, Donald (1997) BA, Brigham Young U., 1966; MA, MS, U. of Wisconsin, 1967, 1969; PhD, Stanford U., 1972.

Patterson, Robert S. (1992) BEd, MEd, U. of Alberta, Canada; PhD, Michigan State U., 1968.

Associate Professors

Baugh, Steven C. (2000) BS, MEd, EdD, Brigham Young U., 1969, 1970, 1978.

Geo-JaJa, MacLeans (2000) BS, Morehead State U., 1976; MS, Indiana State U., 1980; PhD, U. of Utah, 1986.

Hite, Steven (1991) BS, MS, Brigham Young U., 1980, 1982; EdD, Harvard U., 1985.

Matthews, L. Joseph (1998) BA, U. of Wyoming, 1972; MEd, EdD, Brigham Young U., 1978, 1987.

Randall, E. Vance (1992) BS, MEd, Brigham Young U., 1975, 1978; PhD, Cornell U., 1989.

Richards, A. LeGrand (1985) BS, PhD, Brigham Young U., 1975, 1982; MEd, Harvard U., 1976.

Webb, Clark D. (1966) BA, MA, Brigham Young U., 1964, 1966; PhD, U. of Texas, Austin, 1970.

Williams, Ellen J. (2000) BA, MED, Utah State U., 1966, 1973; EdD, Brigham Young U., 1990.

Assistant Professors

Ferrin, Scott Ellis (1997) BA, JD, Brigham Young U., 1980, 1984; MEd, EdD, Harvard U., 1989, 1996.

Hite, Julie M. (2000) BS, MOB, Brigham Young U., 1980, 1995; PhD, U. of Utah, 1999.

Mayes, Clifford T. (1998) BA, MA, U. of Arizona, 1974, 1981; MA, U. of Oregon, 1979; PhD, U. of Utah, 1997.

Peterson, Erlend D. (1966) BS, MS, EdD, Brigham Young U., 1967, 1971, 1985.

Willardson, J. D. (1996) BS, Brigham Young U., 1966; MBA, U. of Utah, 1979; EdD, U. of Southern California, 1987.

Adjunct Faculty

Dixon, Joan (2000) BA, MOB, Brigham Young U., 1976, 1983; EdD, U. of Massachusetts, Amherst, 1995.

Hyer, Karen E. (1999) BA, Stanford, 1963; MA, San Jose State U., 1966; PhD, Stanford, 1968; JD, Northwestern Coll. of Law, Lewis and Clark Coll, 1988.

Murdock, Sharon (2000) BEd, U of Alberta, Canada, 1968; MA, EdD, Brigham Young U., 1986, 1993.

Poulsen, Denis (1998) BS, MEd, Brigham Young U., 1967, 1979.

Van Orman, Jan (1999) BA, MA, U. of Utah, 1964, 1970.

Emeriti

Andersen, Dan W. (1980) BS, U. of Utah, 1952; MS, U. of Southern California, 1955; PhD, U. of Wisconsin, Madison, 1961.

Butterfield, Dennie D. (1974) BA, Bri Young U., 1955; MA, Fresno State Coll., 1962; EdD, U. of California, Los Angeles, 1972.

Christensen, Dean C. (1957) BS, MS, Utah State U., 1938, 1948; EdD, U. of Oregon, 1957.

Flinders, Neil J. (1978) BS, MRE, EdD, Brigham Young U., 1960, 1963, 1968.

Garfield, Rulon Roy (1978) BS, MA, PhD, U. of Utah, 1954, 1956, 1964.

Harms, Callis R. (1960) BS, MEd, Brigham Young U., 1952, 1956; EdD, Arizona State U., 1961.

Heaton, Israel C. (1956) BS, MS, Utah State U., 1940, 1941; EdD, DRE, Indiana U., Bloomington, 1955.

Hungerford, Curtiss R. (1977) BA, Stanford U.; MA, PhD, U. of Southern California, 1956, 1967.

Hyatt, Norman F. (1970) BS, MS, Brigham Young U., 1948, 1949; EdD, U. of Oregon, 1964.

Ovard, Glen F. (1965) BS, MS, Brigham Young U., 1949, 1954; EdD, Stanford U., 1959.

Shute, R. Wayne (1974) BS, MEd, Brigham Young U., 1955, 1959; EdD, U. of Southern California, 1964.

Van Alfen, Curtis N. (1967) BS, MS, Utah State U., 1957, 1959; EdD, U. of Utah, 1967.

Electrical and Computer Engineering

Richard L. Frost, Chair
459 CB, (801) 422-4012

College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325

Admission to Degree Program

The degree programs in the Department of Electrical and Computer Engineering carry special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Electrical and computer engineers study phenomena, devices, and systems for information processing, communication, and systems control. These studies, grounded primarily in physics and mathematics, have enabled engineers to develop the innovative new technologies for information acquisition, processing, storage, and communication that have made possible our contemporary Age of Information.

Examples of systems developed by electrical and computer engineers include radio, television, radar, satellite communication systems, cellular telephones, laptop computers, fiber-optic communications devices, global and local computer networks, robotic systems, control systems, fax machines, medical image processing; computer modems, lasers, pagers, computer vision, programmable calculators, VLSI chips, computer-aided design tools, and medical instruments.

Although it is the goal of engineering to produce useful objects, electrical and computer engineers typically play a limited role in construction, assembly, or mass production. Instead, they focus on design, analysis, and the development of the underlying theory and knowledge applied in the design process.

Many engineers are involved in designing and developing products, but other electrical and computer engineers may choose to work in product marketing, project management, system calibration and maintenance, product testing, or other areas related to electronic systems.

Computer programming skills and the ability to use advanced design and simulation software packages are vital in electrical as well as computer engineering. As part of their training, electrical engineers become familiar with a variety of programming languages and software environments. This experience is closely coupled to real-world applications.

Career Opportunities

Electrical and computer engineers are among the most actively recruited students graduating from a four-year program. Baccalaureate engineers typically start their careers as members of project teams with one or more of the following responsibilities: designing digital, analog, or opto-electronic circuits; creating or testing application-specific software; testing components or systems; or providing technical support for sales. Later on, many engineers find themselves pursuing managerial careers, starting their own companies, or even managing entrepreneurial funds. Top graduates are also well received by medical schools, law schools, and professional and management programs.

The BS curriculum for both the electrical engineering and computer engineering degrees is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET).

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate* 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

*Students majoring in this department need more hours to graduate than the university minimum.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Computer Engineering
BS Electrical Engineering

Students should see their college advisement center or department advisor for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Electrical Engineering
PhD Electrical Engineering

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

Preprofessional Program. All students who declare electrical and computer engineering as a major will be designated preprofessional until they submit an application for acceptance to the professional program (available at the college advisement center, 264 CB) and it has been approved by the department's admissions committee. Preprofessional students are not allowed to enroll in electrical and computer engineering professional courses.

Academic Standards and Continuance. In addition to being subject to university academic standards, electrical and computer engineering students are required to attain a grade point average (GPA) of 2.00 or better in all courses taken as part of the professional program. Specifically these professional courses consist of all courses from the Electrical and Computer Engineering, Computer Science, Mathematics, and Physics and Astronomy Departments taken to satisfy graduation requirements after admission to the professional program.

If a student's GPA in these professional courses drops below 2.00 or if a single-semester GPA in these courses is below 2.00, the student will be placed on probation. The department will make a reasonable effort to inform students of their probationary status via a letter to the address listed by the university. Students must correct this deficiency or make reasonable progress toward correction during the probationary semester, or they will be suspended from the program. A student cannot graduate from the electrical and computer engineering programs with a GPA in these professional courses that is lower than 2.00.

Professional Registration. The Electrical and Computer Engineering Department provides the option for graduates to become registered professional engineers. General qualifications for becoming registered are explained in the College of Engineering and Technology section of this catalog. This status is vital to engineering practice in the public sector and to much consulting work. The basic electrical and computer engineering program outlined in this department prepares graduates to successfully complete the Fundamentals of Engineering (FE) examination. Students who wish to become registered as professional engineers are advised to discuss this matter with an advisor from the department soon after admission to the professional program.

BS Computer Engineering (90.5–91.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the department advisor for information regarding requirements for admission to this major.

Objectives

1. Provide instruction in computer engineering by introducing students to the analytical thinking, language, and skills that prepare them for a career in computer engineering and further study in postgraduate programs.
2. Provide opportunities to engage in scholarly research or creative design that complement the education obtained through the course work by including design laboratories, a major design experience, and, where practical, participation in funded research projects.
3. Seek and retain faculty who are examples of faith, intellect, and character and who instill in students the skills and the desire to continue learning and to serve others throughout their lives.
4. Sustain an excellent, nationally recognized undergraduate program that produces graduates capable of competing with the best in the field.

Major Requirements

1. Complete the following preprofessional program as soon as possible upon entering BYU:
   a. Complete the following (or approved equivalent courses):
      ECEn 191.
      Math 112, 113.
      Phscs 121, 220.

      Note: ECEn 191 is not required before application for professional status.
   b. Complete at least one course (other than Engl 312 or 316) from those listed in item 2 below.

c. During the semester of completing the above, obtain an application from the college advisement center and apply for professional status. (Contact the department or the college advisement center for additional details.)

2. Complete the following supporting courses (either as a preprofessional or a professional student):
   Chem 105 or 111.
   CS 142, 235, 236, 240.
   ECEn 124.
   Engl 312 or 316.
   Math 334, 343.
   Stat 441 or equivalent.

3. Complete the following professional requirements:
   ECEn 212, 224, 313, 317, 380, 490.

4. Complete at least 22 hours from the following advanced program and technical electives:
   a. Complete at least 2 hours from the following courses:
      ECEn 360, 361, 362 (credit will not be given for both 361 and 362).
   b. Complete at least three of the following courses:
      ECEn 324, 425, 427, 451.
   c. Complete at least two of the following courses:
      CS 345, 428, 431, 452, 455, 456, 460, 462, 465, 470, 472.
   d. Complete remaining course hours from the following:
      (1) Additional courses listed in items 4a, 4b, and 4c above.
      (2) 500-level computer science courses.
      (3) 300-level and higher electrical and computer engineering courses except 301.
      (4) Other engineering, mathematics, and physics courses as specified or approved by the Electrical and Computer Engineering Department.

Note: Contact the Electrical and Computer Engineering Department for current information about added and/or deleted courses, as well as information about when courses are offered.

*Hours include courses that may fulfill GE or university requirements.

BS Electrical Engineering (91.5–92.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the department office for information regarding requirements for admission to this major.

Program Objectives

1. Provide instruction in electrical engineering by introducing students to the analytical thinking, language, and skills that prepare them for a career in electrical engineering and further study in postgraduate programs.
2. Provide opportunities to engage in scholarly research or creative design that complement the education obtained through the course work by including design laboratories, a major design experience, and, where practical, participation in funded research projects.
3. Seek and retain faculty who are examples of faith, intellect, and character and who instill in students the skills and the desire to continue learning and to serve others throughout their lives.
4. Sustain an excellent, nationally recognized undergraduate program that produces graduates capable of competing with the best in the field.

Major Requirements

1. Complete the following preprofessional program as soon as possible upon entering BYU:
   a. Complete the following (or approved equivalent courses):
      ECEn 191.
      Math 112, 113.
      Phscs 121, 220.

      Note: ECEn 191 is not required before application for professional status.
   b. Complete at least one course (other than Engl 312 or 316) from those listed in item 2 below.
   c. During the semester of completing the above, obtain an application from the college advisement center and apply for professional status. (Contact the department or the college advisement center for additional details).

2. Complete the following supporting courses (either as a preprofessional or a professional student):
   Chem 105 or 111.
   CS 142, 235.
   ECEn 124.
   Engl 312 or 316.
   Math 214, 334, 343.
   Phscs 281.
   Stat 441 or equivalent.

3. Complete the following professional requirements:
   ECEn 212, 224, 313, 317, 360, 361, 380, 490.

4. Complete at least 20 hours from the following advanced program and technical electives:
   a. Complete at least four courses selected from at least three of the following groups:
      (1) ECEn 443, 445, 450, ChEn 381.
      (2) ECEn 460.
      (3) ECEn 483, 485, 487.
      (4) ECEn 324, 425, 427, 451.
   b. Complete remaining course hours selected from the following:
      (1) Additional courses listed in item 4a above, or other 400-level electrical and computer engineering courses.
      (2) 500-level electrical and computer engineering courses.
      (3) Other engineering, mathematics, physics, or computer science courses as specified or approved by the Electrical and Computer Engineering Department.

Note: Contact the Electrical and Computer Engineering Department for current information about added and/or deleted courses, as well as information about when courses are offered.

*Hours include courses that may fulfill GE or university requirements.

Electrical and Computer Engineering (ECEn)

Undergraduate Courses

124. (ECEn-CS) Introduction to Computing Systems. (3:3:2) F, W, Sp, Su Prerequisite: CS 142 or concurrent enrollment.
How a computer works, from hardware to high-level programming: logic circuits, computer instructions, assembly language, binary arithmetic, C programming, program translation, data structures, algorithm analysis.

191. Freshman Seminar. (0.5:1:0) F, W
Presentations by faculty and advisors, including design projects.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

212. Circuit Analysis and Laboratory. (5:4:3) F, W, Sp Prerequisite: Phscs 220; Math 113; professional status.
Analysis of electric circuits; sinusoidal-steady state, resonance, Bode plots, and balanced three-phase circuits. Includes labs. To be taken semester of admittance to professional program. Fee.

224. (ECEn-CS) Fundamentals of Digital Systems. (3:3:2) F, W, Sp, Su Prerequisite: ECEn 124.
Digital logic: theory, design, and implementation of combinational and sequential logic. Laboratory experience in construction of digital logic circuits. Fee.

301. Elements of Electrical Engineering. (3:3:1) F, W, Sp Prerequisite: Phscs 220, Math 334.
Linear electrical circuits, computer organization, and logic circuits for nonmajors. Fee.

313. Electronic Circuit Design 1. (4:4:2) F, W, Sp Prerequisite: ECEn 212.
Analysis and design of linear and nonlinear electronic circuit building blocks.

317. Electronics Laboratory 1. (1:0:3) F, W, Sp Prerequisite: ECEn 313 or concurrent enrollment.
Measurement and design of basic electronic building blocks.

324. (ECEn-CS) Computer System Architecture. (4:3:3) F, W, Sp Prerequisite: ECEn 224.
Performance-directed design principles, advanced pipelining, instruction-level parallelism (superscalar and VLIW CPUs), compiler optimizations, memory hierarchy design, etc.

360. Transmission Lines and Introductory Fields. (4:4:2) F, W Prerequisite: Math 214, 334, ECEn 212.
Properties and application of transmission lines. Introduction to electric and magnetic field theory and development of Maxwell's equations.

361. Transmission Lines and Introductory Fields Laboratory. (1:0:3) F, W Prerequisite: ECEn 360 or concurrent enrollment.
Experiments and measurement techniques in static and time-varying fields. Transmission line design and measurements. Microwave generation, propagation, detection, and hardware components.

362. Transmission Line Fundamentals for High-Speed Digital Systems. (2:1:3) F, W Prerequisite: ECEn 212, 312; computer engineering major status.
Transmission lines for high-speed digital systems. Lab.

380. Signals and Systems. (5:4:3) F, W, Sp Prerequisite: ECEn 212, Math 334.
Time and frequency domain analysis of discrete or continuous systems subjected to periodic or nonperiodic input signals.

425. Real-Time and Embedded Systems. (4:3:3) F Prerequisite: ECEn 224.
Hardware/software interface, real-time kernel internals, implementation of high-level language constructs, issues in real-time application software development.

427. Computer Input/Output Devices. (4:3:3) F Prerequisite: ECEn 224, 313.
Input/output interfacing of peripheral devices. Dynamic memory control; disk and graphics controllers. Computer communications; error-control coding with finite fields. Selected laboratory assignments.

443. Electronic Circuit Design 2. (4:3:5) W Prerequisite: ECEn 313, 317.
Design of electronic circuits, such as multistage, power, feedback, and high frequency amplifiers, oscillators, modulators, and power supplies.

445. Introduction to Mixed-Signal VLSI. (4:3:3) F Prerequisite: ECEn 313.
VLSI circuit design emphasizing mixed-signal circuits such as D/A and A/D converters, phase-locked loops, S/H circuits. Associated laboratory provides layout-design experience.

450. Introduction to Semiconductor Devices. (3:3:1) W Prerequisite: ECEn 313, Phscs 281.
Physics of electronic and optical solid state devices; includes semiconductor materials, bipolar and FET device physics and modeling, optical properties of semiconductors, and lasers.

451. Introduction to Digital VLSI Circuits. (4:3:5) W Prerequisite: ECEn 224, 313.
Design of very large-scale integrated circuits for digital systems. CAD tools used extensively to simulate the design and create and verify mask circuits.

452. Experiments in Integrated Circuit Development. (1:0:3) W Prerequisite: ECEn 450 or concurrent enrollment.
Measurements of key silicon properties and fabrication of integrated circuits.

455. VLSI Testing. (1:0:3) F Prerequisite: ECEn 451 or 445.
Testing of ICs designed previous semester in ECEn 451 or ECEn 445. Topics in VLSI-testable circuit designs.

460. Applied Electromagnetic Theory. (3:3:1) F Prerequisite: ECEn 360.
Application of Maxwell's equations to propagating and radiating components and systems.

461. Electromagnetics Laboratory. (1:0:3) F Prerequisite: ECEn 361; 460 or concurrent enrollment.
Design and evaluation of microwave devices, systems, and materials.

483. Feedback Control of Dynamic Systems. (4:3:3) F Prerequisite: ECEn 380.
Analysis of feedback control: stability, root-locus, Nyquist criteria, Bode constraints, state space methods. Design of PID, phase lead/lag, observer-based state feedback controllers.

485. Introduction to Digital Communication Theory. (4:3:3) F Prerequisite: ECEn 380; Stat 441 or equivalent.
Analysis and design of digital communications systems in AWGN: signal space concepts, modulation, matched filter and correlation detection, synchronization, performance. Computer-based design exercises.

487. Introduction to Discrete-Time Signal Processing. (4:3:3) W Prerequisite: ECEn 380; Stat 441 or equivalent.
Digital signal processing, fast Fourier transforms, digital filter design, spectrum analysis. Applications in speech processing, SONAR, communications, etc.

490. Team Design Project. (4:2:6) F, W Prerequisite: selected 400-level electrical and computer engineering courses, depending on the specific project.
Culminating design experience based on skills learned in advanced technical courses. Students work in teams to plan, design, test, and demonstrate a major project.

493R. Special Topics in Electrical and Computer Engineering. (1–4:Arr.:Arr. ea.) F, W, Sp, Su
Topics vary. Recent developments in electrical and computer engineering.

500-Level Graduate Courses (available to advanced undergraduates)

522R. Special Topics in Computer Systems. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.

523. Queueing Theory and Modeling Fundamentals. (3:3:0) Prerequisite: ECEn 380 or concurrent enrollment; Stat 441 or equivalent.
Computer systems and network modeling using stochastic processes: queueing theory models, performance analysis, resource allocations, large-system response parameters.

524. Advanced Digital Systems. (3:3:0) Prerequisite: ECEn 451; proficiency in C or C++.
Advanced synchronous systems design; CAD and HDLs; systolic arrays; high-speed, low-power digital circuit architectures.

526. Computer Internetworking. (3:3:0) Prerequisite: ECEn 427 or equivalent.
Basics of computer networking, legacy and modern LANS, switches/routers, voice/data/video communications, lab experience with network routers and switches, performance evaluation.

528. Advanced Computer Architecture. (3:3:0) Prerequisite: ECEn 324; proficiency in C or C++.
Lab experience with hardware and software techniques for exploiting instruction-level parallelism.

541. Active and Passive Filter Design. (3:3:0) Prerequisite: ECEn 313, 380; or equivalents.
Design methods for electronic filters based on passive components, active components, and integrated circuit components.

542R. Special Topics in Electronics. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.

543. CMOS Amplifier Design. (3:3:0) Prerequisite: ECEn 443 or 445 or equivalent.
Factors affecting performance of MOS devices in analog applications. Design of MOS amplifiers, buffers, and comparators.

548. Analog CMOS Circuit Design. (3:3:0) Prerequisite: ECEn 443 or 445 or equivalent.
Design of CMOS comparators, wideband amplifiers, bandgap references; multipliers, PTAT generators, charge-transfer amplifiers, chopper-stabilized amplifiers, and advanced D/A and A/D CMOS architectures.

549. VLSI Communication Circuit Design. (3:3:0) Prerequisite: ECEn 443 or 445 or equivalent.
Frequency synthesizers; low-jitter, voltage-controlled oscillators; high Q circuits; clock regeneration; phase-locked loops; frequency discriminators; and radio-on-a-chip concepts.

550. Microelectromechanical Systems (MEMS). (3:3:0) Prerequisite: ECEn 450 or MeEn 372 or equivalent.
Design, fabrication, and applications of microelectromechanical systems (MEMS). Mechanical properties governing design and reliability of MEMS and the processing technologies used to fabricate them.

551. VLSI Systems Design. (3:3:0) Prerequisite: ECEn 451.
Design of structured circuit systems for very large-scale integrated semiconductor chips. Architecture of digital VLSI systems.

553. VLSI Process Technology. (3:3:0) Prerequisite: senior or graduate standing in engineering or physical sciences.
Physical and chemical process steps used in fabricating very large-scale integrated circuits on monolithic silicon crystal.

560. Electromagnetic Wave Theory. (3:3:0) Prerequisite: ECEn 460 or equivalent.
Principles and methods of modern electromagnetic wave theory: anisotropic media, dyadic green functions, Nuygen's principle, contour integration methods, asymptotic integration. Applications in radiation and scattering.

561. High-Frequency Communication Circuits. (4:4:3) Prerequisite: ECEn 360, 443.
Circuits and RF techniques used in communication systems.

562. Optical Communication Components and Systems. (3:3:0) Prerequisite: ECEn 460 or equivalent.
Fiber-optic communication system components and their operating and performance characteristics.

563. Applied Computational Electromagnetics. (3:3:0) Prerequisite: ECEn 460 or equivalent.
Current theory and practice in numerically solving Maxwell's equations for antenna and circuit design and radar-scattering prediction.

564. Radar and Communication Systems. (3:3:0) Prerequisite: ECEn 460, 485; or equivalents.
Design and performance of radar and communication systems: radar equation ambiguity functions, modulation, signal detection, link budgets, spread spectrum, system design, and performance trade-offs.

568. Microwave Remote Sensing. (3:3:0) Prerequisite: instructor's consent.
Emphasis on space-borne remote sensing of the earth's atmosphere, land, and oceans. Primary methods and applications for both active (radar) and passive (radiometry).

580. Stochastic Processes. (3:3:0) Prerequisite: ECEn 380 or equivalent; Stat 441 or equivalent; graduate standing or instructor's consent.
Review of elementary probability, introduction to random processes: definitions, properties, covariance, spectral density, time average, stationarity, ergodicity, linear system relations, mean square estimation, Markov processes.

581. Detection and Estimation Theory. (3:3:0) Prerequisite: ECEn 582; Stat 441 or equivalent; graduate standing or instructor's consent.
Sufficiency, completeness; Neyman-Pearson and Bayes detector; maximum likelihood, Bayes, minimum mean square, and linear estimation; Kalman filters; selected topics.

582. Mathematics of Signals and Systems. (3:3:0) Prerequisite: ECEn 380, Math 343 (or equivalents); graduate standing or instructor's consent.
Introduction to mathematics of signal processing, communication, and control theory; linear spaces, Eigenvalue and singular-value decompositions, quadratic forms, linear operators, adjoints, dual spaces.

588. Digital Image Processing. (3:3:0) Sp Prerequisite: ECEn 487, 580.
Digital processing theory and techniques for two-dimensional image analysis, enhancement, restoration, data compression, and reconstruction from projections.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Electrical and Computer Engineering Faculty

Professors
Chabries, Douglas M. (1978) BS, U. of Utah, 1966; MS, California Inst. of Technology, 1967; PhD, Brown U., 1970.
Christiansen, Richard W. (1978) BS, Rutgers U., 1961; MS, U. of New Mexico, 1966; PhD, U. of Utah, 1976.
Comer, David J. (1981) BSEE, San Jose State U., 1961; MSEE, U. of California, Berkeley, 1962; PhD, Washington State U., 1966.
Comer, Donald T. (1995) BS, San Jose State U., 1959; MS, U. of California, Berkeley, 1961; PhD, U. of California, Santa Clara, 1968.
Hutchings, Brad (1992) BS, MS, PhD, U. of Utah, 1984, 1987, 1992.
Long, David G. (1990) BS, MS, Brigham Young U., 1982, 1983; PhD, U. of Southern California, 1989.
Manwaring, Mark L. (2000) BS, MS, PhD, Utah State U., 1970, 1974, 1979.
Nelson, Brent E. (1984) BS, MS, PhD, U. of Utah, 1981, 1983, 1984.
Stirling, Wynn C. (1984) BS, MS, U. of Utah, 1969, 1971; PhD, Stanford U., 1983.
Swindlehurst, A. Lee (1990) BS, MS, Brigham Young U., 1985, 1986; PhD, Stanford U., 1990.

Research Professor
Smith, Samuel M. (2001) BS, MS, PhD, Brigham Young U., 1987, 1987, 1991.

Associate Professors
Archibald, James K. (1987) BS, Brigham Young U., 1981; MS, PhD, U. of Washington, 1983, 1987.
Beard, Randal W. (1996) BS, U. of Utah, 1991; MS, PhD, Rensselaer Polytechnic Inst., 1993, 1995.
Bearnson, Leroy W. (1972) BS, U. of Utah, 1961; MS, Syracuse U., 1965; PhD, Auburn U., 1970.
Frost, Richard L. (1987) BS, MS, PhD, U. of Utah, 1975, 1977, 1979.

Hawkins, Aaron R. (2002) BS, California Inst. of Technology, 1994; MS, PhD, U. of California, Santa Barbara, 1996, 1998.
Jeffs, Brian D. (1990) BS, MS, Brigham Young U., 1978, 1982; PhD, U. of Southern California, 1989.
Jensen, Michael (1994) BS, MS, Brigham Young U., 1990, 1991; PhD, U. of California, Los Angeles, 1994.
Lee, Dah-Jye (2001) BS, National Taiwan U. of Science and Technology, 1984; MS, PhD, Texas Technological U., 1987, 1990.
Rice, Michael D. (1991) BS, Louisiana Tech U., 1987; MS, PhD, Georgia Inst. of Technology, 1989, 1991.
Selfridge, Richard H. (1987) BS, California State U., Sacramento, 1978; MS, PhD, U. of California, Davis, 1980, 1984.
Wilde, Doran (1995) BS, Brigham Young U., 1978; MS, PhD, Oregon State U., 1993, 1995.

Research Associate Professor
Arnold, David V. (1992) BS, MS, Brigham Young U., 1983, 1987; PhD, Massachusetts Inst. of Technology, 1992.

Assistant Professors
Oliphant, Travis (2001) BS, MS, Brigham Young U., 1995, 1996; PhD, Mayo Graduate School, 2000.
Petrie, Craig (2002) BS, Brigham Young U., 1993; MS, PhD, Georgia Inst. of Technology, 1996, 1997.
Schultz, Stephen M. (2002) BS, MS, Brigham Young U., 1992, 1994; PhD, Georgia Inst. of Technology, 1999.
Warnick, Karl F. (2000) BS, PhD, Brigham Young U., 1994, 1997.
Wirthlin, Michael J. (1999) BS, PhD, Brigham Young U., 1992, 1997.

Adjunct Faculty
Lawton, Robert A., BS, Brigham Young U., 1960; MS, PhD, U. of Colorado, 1968, 1972.
Rose, Darrell E., BS, Brigham Young U., 1960; MS, Southern Illinois U., 1961; PhD, U. of Oklahoma, 1965.

Emeriti
Berrett, Paul O. (1964) BS, U. of Utah, 1953; MS, U. of Southern California, 1955; PhD, U. of Utah, 1965.
Bowman, Lawrence S. (1967) BS, MS, PhD, U. of Utah, 1957, 1961, 1964.
Chaston, A. Norton (1957) AS, U. of Idaho, 1944; BS, U. of Utah, 1951; MS, Brigham Young U., 1963.
Clegg, John C. (1961) BS, MS, PhD, U. of Utah, 1949, 1954, 1957.
Humpherys, Deverl S. (1964) BS, Brigham Young U., 1955; MS, U. of Utah, 1957; PhD, U. of Illinois, 1963.
Jonsson, Jens J. (1953) BS, BS, U. of Utah, 1944, 1947; MS, PhD, Purdue U., 1948, 1951.
Losee, Ferril A. (1965) BS, U. of Utah, 1953; MS, U. of Southern California, 1957.
Miner, Gayle F. (1960) BS, MS, U. of Utah, 1959, 1960; PhD, U. of California, Berkeley, 1969.
Ward, David M. (1964) BS, Stanford U., 1959.

Elementary Education

See Teacher Education.

Engineering and Technology Education

Douglas M. Chabries, Dean
270 CB, (801) 422-4327

Engineering and Technology Education Courses (EngT)

295R. Engineering Math Refresher. (0:3:0) F, W
Review of basic techniques of algebra, trigonometry, differential calculus, integral calculus, and series and sequences in preparation for engineering mathematics, ordinary differential equations, and multivariable calculus.

200. Global Technology Issues. (3:3:0) F
Interaction between the global society and technology. Global policy issues dealing with supply and demand of key commodities, economics, environment, population, and food and water resources.

498. International Project. (0.5:0.5:0) F, W
Report of a senior project that demonstrates comprehension of the international dimensions of the student's major.

500-Level Graduate Courses (available to advanced undergraduates)

502. Advanced Applied Engineering Math 1. (3:3:0) F
Prerequisite: Math–EngT 302, 303; or equivalents.
Topics in modern engineering mathematics, including applications of differential and integral equations and vector spaces.

503. Advanced Applied Engineering Math 2. (3:3:0) W
Prerequisite: EngT 502 or equivalent.
Topics in modern engineering mathematics, including applications of partial differential and integral equations and numerical analysis.

595R. Special Topics in Engineering and Technology. (1–3:Arr.:0 ea.) F, W, Sp, Su
Special topics in engineering and technology that relate to current research areas or issues related to industry.

English

John S. Tanner, Chair
3146 JKHB, (801) 422–3053

Gary L. Hatch, Coordinator, English Composition
3110 JKHB, (801) 422–3565

College of Humanities Advisement Center
3078 JKHB, (801) 422–4789

Admission to Degree Program

All degree programs in the Department of English are open enrollment. However, special enrollment limitations apply for teaching majors.

The Discipline

The English major provides a detailed knowledge of the English language and of literature written in English. English majors approach language and literature as a source of knowledge and aesthetic pleasure, a mode of encountering and evaluating diverse minds and attitudes, a vehicle for art and action, a means of historical understanding, and a source of spiritual insight. English majors use writing as their primary means (1) of knowing, understanding, and evaluating their experience and their reading and (2) of sharing their insight with others. In keeping with the long-standing ideals of a liberal arts education, the English Department aims to cultivate in its students those foundational skills in writing, awareness, and judgment upon which lives of wisdom, service, and an ever-increasing love for learning might be built.

Career Opportunities

With a firm grounding in the liberal arts, English majors are prepared for any career that requires perceptive reading, orderly and clear thinking, intellectual maturity, and effective writing. Many career opportunities for English majors exist in teaching, professional writing and editing, law, business, communications, or government service. English majors can certify to teach secondary-school English, or they can prepare for graduate study in English and college teaching. When combined with prerequisite courses in other departments, the English major provides excellent preparation for graduate work in law, business, library science, medicine, humanities, or religion. By selecting areas of concentration, some English majors prepare for careers in technical and professional communication, editing, creative writing, and related fields. By supplementing their English major with computer classes, some find work in information technology. The skills and knowledge acquired by an English major also provide good preparation for government service, especially when combined with the study of foreign languages, economics, political science, and history.

General Information

The Department of English strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	English
BA	English Teaching
Minors	English
	English Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA English

For more information see the BYU 2003–2004 Graduate Catalog.

BA English (42 hours)

Major Requirements

1. Students must complete the GE Foreign Language option even if the Advanced Mathematics option has already been completed.
2. At least 21 hours of English major course work must be completed in residence at BYU.
3. Engl 195 is recommended.
4. Because English is a writing-intensive major, students are *strongly encouraged* to take a first-year writing class. Students with AP exam credit for Engl 115 should take Engl 200H, HonP 200, or Phil 105H.
5. Because upper-division English courses require substantial writing, it is strongly recommended that students complete their Advanced Writing requirement as they begin their first upper-division courses, preferably in the second semester of their sophomore year.
6. No more than 3 hours of any one R course may apply toward the hours required for the major.
7. Complete the following core courses:
   a. Fundamentals of language and literature:
      ELang 223.
      Engl 251.

      Note: Students must complete ELang 223 and Engl 251 before taking any 300-level courses.
   b. British and American literary history:
      Engl 291, 292, 293.

      Note: Students must complete the literary history course in a period before taking any 300-level courses in that period.
8. Complete the following:
   Engl 382.
9. Complete one course from two of the following three areas:
   a. Early British Literature:
      Engl 300R**, 341, 371, 372, 373, 381, 383, 384R**, 385.

      Note: Students must complete Engl 291 before taking courses in this area.
   b. Later British Literature:
      Engl 300R**, 333, 343**, 374, 375, 376, 380, 384R**.

      Note: Students must complete Engl 292 before taking courses in this area.
   c. American Literature:
      Engl 336, 343**, 360R, 361, 362, 363, 365, 384R**.

      Note: Students must complete Engl 293 before taking courses in this area.

   **Note: Three hours of Engl 300R may count toward either early or later British literature. Three hours of Engl 384R may count toward one of these three areas according to the period of the major author studied. Engl 343 may count toward either later British or American literature, according to the course content.
10. Language, Rhetoric, and Theory: complete one course from the following:
    ELang 324, 325.
    Engl 426, 427, 451, 452.
11. Diverse Traditions and Methods: complete one course from the following:
    ELang 528.
    Engl 337R, 345, 350, 355, 356, 358R, 364, 368, 391, 392, 396.
12. Complete the following:
    Engl 495.

    Note: Students should take this course their senior year, after taking Advanced Writing.
13. Complete any 9 elective hours from Engl 218R and courses 300-level or above except the English course used to fulfill the GE Advanced Writing requirement and English education courses: 329, 377, 378, 423, 479. Students may count 3 hours each of HonP 203R or 303R as elective credit, as well as 3 hours from the following list of courses in foreign literature:
    Arab 461, 462, 531R.
    Chin 441, 442, 443, 444, 445R.
    Dansh 340.
    Dutch 340.
    Finn 340.
    Fren 438, 439, 441, 442, 443, 444.
    Germ 430, 431, 440R, 441R, 442R.
    Greek 301, 302, 430, 431, 434, 435, 436, 437.
    Heb 331, 421, 431, 441, 442, 443, 444.
    Iclnd 429.
    Ital 441, 442, 443, 444, 460.
    Japan 322, 441, 444.
    Korea 340, 443.
    Latin 301, 302, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441.
    Norwe 340.
    Port 339, 439R, 441, 442, 449R, 451, 452, 453, 459R.
    Russ 441, 442.
    Span 339, 439R, 440, 441, 443R, 444, 446R, 448R, 449R, 450R, 451, 454R, 455R, 456R, 458R, 459R, 461R.
    Swed 340.
14. If they choose, students may use their 9 hours of elective credit in an area of concentration, such as the following:
    Creative Writing:
    Engl 218R, 318R, 319R, 320R, 419R, 518R.
    Professional Writing:
    Engl 316, 399R, 415R, 418.
    Editing:
    ELang 322, 325, 330, 430R.
    English Language:
    ELang 322, 324, 325, 326, 421R.
    Folklore, Ethnic, and Regional Literature:
    Engl 356, 358R, 364, 368, 391, 392, 393R.
    Rhetoric and Academic Writing:
    Engl 399R, 424, 425R, 426, 427, 428R.
    Preparation for Graduate Studies in English:
    ELang 324.
    Engl 424, 451, 452, and additional advanced courses in literature and language.
15. Students may double-count courses for both the English major and other minors or double major programs.

BA English Teaching (71–72 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding admission to this program.

Major Requirements

1. This is a closed major requiring application to the program. Application forms are available in the Humanities Advisement Center (3078 JKHB) and the English Education Office (3102 JKHB). Students cannot apply until they have completed at least 9 hours of English major core courses with at least a 3.0 GPA.
2. Students must complete the GE Foreign Language option even if the Advanced Mathematics option has already been completed.

3. At least 24 hours of English major course work must be completed in residence at BYU.
4. Engl 195 is recommended.
5. Because English is a writing-intensive major, students are *strongly encouraged* to take a first-year writing class. Students with AP exam credit for Engl 115 should take Engl 200H, HonP 200, or Phil 105H.
6. Upper-division English courses require substantial writing. Students should plan to complete their Advanced Writing requirement as they begin their first upper-division courses, usually at the beginning of the junior year.
7. A teaching minor is not required for licensure. However, it is strongly recommended.
8. ScEd 276R is prerequisite to Engl 329, 377, 378, and 423 (377 and 378 may be taken concurrently). Engl 377 and 378 are prerequisite to ScEd 476R.
9. Complete the following core courses:
   a. Fundamentals of language and literature:
      ELang 223.
      Engl 251.

      Note: Students must complete 223 and 251 before taking any 300-level courses.
   b. British and American literary history:
      Engl 291, 292, 293.

      Note: Students must complete the literary history course in a period before taking 300-level courses in that period.
10. Complete two courses from the following:
    Engl 361, 362, 363, 365.
11. Complete one course from the following:
    Engl 345, 356, 358R, 359, 366 (356 is recommended).
12. Complete the following:
    Engl 329, 377, 378, 382, 420, 423, 479, 495.
13. Complete the Professional Education Component (25–26 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

Minor English (18 hours)

Minor Requirements

1. At least 9 hours must be taken in residence at BYU.
2. Complete the following introductory courses (both are prerequisite to all other English courses):
   ELang 223.
   Engl 251.
3. Complete 12 elective hours from Engl 200-level or higher courses. At least 6 hours must be 300-level or higher.

Minor English Teaching (27 hours)

Minor Requirements

1. At least 12 minor hours must be completed in residence at BYU.
2. Complete the following introductory courses:
   Engl 251 (prerequisite to all other English courses).
3. Complete the following:
   Engl 232, 292, 293, 329, 377, 378, 420, 423.

English (Engl)

Undergraduate Courses

115. College Writing and Reading. (3:3:0) Independent Study also.
Basic principles of critical reading and expository writing: purpose, structure, logic, and language. Carries GE First- Year Writing credit.

195. Introduction to the English Major. (1:1:0)
Overview of the English major for the beginning student: curriculum, faculty, career options. Grading based chiefly on attendance.

200. Writing and Rhetoric. (3:3:0) Honors also.
Rhetorical approaches to writing, reading, and research for students with experience or advanced skills. Fulfills General Education First-Year Writing requirement.

201. Masterpieces of World Literature 1. (3:3:0) Honors and Independent Study also.
Major world civilizations from antiquity through the early Italian Renaissance, approached through literature and emphasizing socioeconomic, religious, political, intellectual, and aesthetic developments.

202. Masterpieces of World Literature 2. (3:3:0) Honors and Independent Study also. Prerequisite: Engl 201.
Major world civilizations from Europe's High Renaissance to modern times, approached through literature and emphasizing socioeconomic, religious, political, intellectual, and aesthetic developments.

218R. Creative Writing. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 115 or equivalent.
Individual sections dealing with poetry, personal essays, drama, fiction, or science fiction, or combinations of these.

220. Composing Personal History. (3:3:0) Independent Study also.
Composing personal history through writing, mementos, oral history, chronologies, letters, documents, journals, and other mediums.

230. Introduction to Literature: Fiction, Drama, Poetry. (3:3:0) Independent Study also.
Introduction to various literary themes, forms, and authors. Does not fulfill English major requirements.

232. Shakespeare. (3:3:0) Independent Study also.
Careful reading and discussion of six to eight major plays. Does not fulfill English major requirements.

235. Masterpieces of American Literature. (3:3:0) Independent Study also.
Selected readings from Puritan times to the present.

236. Masterpieces of English Literature. (3:3:0) Independent Study also.
Selected readings from medieval times to the present.

251. Fundamentals of Literary Interpretation and Criticism. (3:3:0) Independent Study also. Prerequisite: Engl 115 or equivalent.
Introduction to concepts and practice of literary analysis; critical theories; and elements of fiction, poetry, and drama.

268. Literature of the Latter-day Saints. (3:3:0)
Fiction, poetry, drama, folklore, essay, etc., emerging from and reflecting upon the LDS experience from Joseph Smith to the present.

291. British Literary History 1. (3:3:0) Independent Study also. Prerequisite: Engl 251 or concurrent enrollment.
Development of ideas, movements, genres, and styles in early English literature as illustrated through representative texts.

292. British Literary History 2. (3:3:0) Independent Study also. Prerequisite: Engl 251 or concurrent enrollment.
Development of ideas, movements, genres, and styles in later English literature as illustrated through representative texts.

293. American Literary History. (3:3:0) Independent Study also. Prerequisite: Engl 251 or concurrent enrollment.
Development of ideas, movements, genres, and styles in American literature as illustrated through representative texts.

300R. English Literature in a Cultural Setting. (1–6:Arr.:Arr. ea.) For Study Abroad students only.

305. Critical Reading. (3:3:0) F, W Prerequisite: advanced composition; instructor's consent.
Theories, processes, and strategies of reading and their use in interpreting, analyzing, and evaluating literary, functional, and informational texts.

306. Travel Writing. (1–3:3:0) For Study Abroad or Travel Study students only. F, W, Sp
Theory and practice of writing about travel experience.

311. Writing About the Arts and Humanities. (3:3:0) Honors also. Prerequisite: Engl 115 or equivalent; junior or senior status.
Writing for both academic and mass audiences about the functions, meanings, values, and qualities of art and the humanities. Library research paper. Carries GE Advanced Writing credit.

312. Persuasive Writing. (3:3:0) Honors and Independent Study also. Prerequisite: Engl 115 or equivalent; junior or senior status.
Expository and persuasive writing focusing on practical reasons for evaluating audiences, generating and structuring an argument, and making stylistic decisions. Library research paper. Carries GE Advanced Writing credit.

313. Expository Writing for Elementary Education Majors. (3:3:0) Independent Study also. Prerequisite: Engl 115 or equivalent; MFHD 322; junior or senior status.
Learning to write as professional educators and to teach writing to children. Best taken before the professional sequence. Library research paper. Carries GE Advanced Writing credit.

314. Writing About Literature. (3:3:0) Independent Study also. Prerequisite: Engl 115 or equivalent.
Writing about the functions, meanings, qualities, and contexts of literature for specialist and nonspecialist audiences using selected critical theories. Research paper. Primarily for majors in literary studies. Carries GE Advanced Writing credit.

315. Writing in the Social Sciences. (3:3:0) Honors and Independent Study also. Prerequisite: Engl 115 or equivalent; junior or senior status.
Writing characteristic of disciplines that inquire into human behavior and institutions; correspondence, proposals, library paper, empirical research, and reviews. Carries GE Advanced Writing credit.

316. Technical Writing. (3:3:0) Honors and Independent Study also. Prerequisite: Engl 115 or equivalent; junior or senior status.
Writing scientific and technical proposals, articles, reports, and memoranda. Research paper. Carries GE Advanced Writing credit.

317. Writing Creative Nonfiction. (3:3:0) On dem Prerequisite: Engl 218 or instructor's consent.
Creations of style and technique in prose nonfiction; discipline and practice of the writer.

318R. Writing Fiction. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 218R or instructor's consent.
Creation of style and technique in prose fiction; discipline and practice of the writer.

319R. Writing Poetry. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 218R or instructor's consent.
Creation of style and technique in poetry; discipline and practice of the poet.

320R. Writing for Children and Adolescents. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 218R.
Theory and practice of writing prose and verse for youth readership. Specific attention to requirements of picture books, middle-grade novels, and young adult stories.

329. Teaching Grammar and Usage in Secondary Schools. (3:3:0) Prerequisite: ScEd 276R.
Language issues, particularly grammar, usage, and pedagogy, for students preparing to teach English at the secondary level.

333. The English Novel. (3:3:0) Independent Study also. Prerequisite: Engl 251, 292.
Novels of the past three centuries, emphasizing those of the nineteenth and twentieth centuries.

336. The American Novel. (3:3:0) Independent Study also. Prerequisite: Engl 251.
Representative novels of the American tradition from the late eighteenth century to the present.

337R. Contemporary Literature. (3:3:0 ea.) Prerequisite: Engl 251.
Trends, techniques, and themes in fiction, drama, or poetry since the 1950s.

341. English Drama: Beginnings to 1800, Excluding Shakespeare. (3:3:0) Prerequisite: Engl 251, 291.
Selected plays from medieval, Tudor, Stuart, Restoration, and 18th-century drama.

343. Modern English and American Drama. (3:3:0) Prerequisite: Engl 251.

345. Literature and Film. (3:3:0) Prerequisite: Engl 251.
Emphasis on film as an interpretation of texts.

350. The Bible as Literature. (3:3:0) Independent Study also.
Literary artistry, human values, and cultural significance of the Bible.

355. (Engl-ClCv) Greek and Roman Classics and the English Tradition. (3:3:0)
Major works by such authors as Homer, the Greek and Roman tragedians, Thucydides, Vergil, and Petronius in English translation, emphasizing their influence on English and American literature.

356. Myth, Legend, and Folktales. (3:3:0) Prerequisite: Engl 251.
Major mythic and legendary works that provide background for the literary tradition.

358R. Ethnic, Regional, and Other Literatures in English. (3:3:0 ea.) Prerequisite: Engl 251.
Sections stressing Native American, African American, Chicano, third-world, regional, or other literatures in English.

359. The Short Story. (3:3:0) Independent Study also.
Critical study of American, English, and European short stories, emphasizing those of the twentieth century.

360R. American Literature in a Cultural Setting. (3:3:0 ea.) Prerequisite: admission to Semester in Nauvoo Program—Joseph Smith Academy. Offered at Nauvoo Center only.
American literature emphasizing writers and works related to the period and region of the early decades of LDS Church history.

361. American Literature to the Mid–Nineteenth Century. (3:3:0) Prerequisite: Engl 251, 293.
Major and selected minor writers and literary trends from Puritanism through transcendentalism.

362. American Literature from the Late Nineteenth to the Early Twentieth Century. (3:3:0) Independent Study also. Prerequisite: Engl 251, 293.
Major and selected minor writers and literary trends from the late nineteenth century through naturalism.

363. American Literature from the Early to Mid–Twentieth Century. (3:3:0) Independent Study also. Prerequisite: Engl 251, 293.
Major and selected minor writers and literary trends from the first half of the twentieth century through modernism.

364. Literature of the American West. (3:3:0) Prerequisite: Engl 251.
Literature protraying the West and the frontier.

365. American Literature from the Mid–Twentieth Century to Present. (3:3:0) Prerequisite: Engl 251, 293.
Selected writers and literary trends, including postmodernism, from the mid–twentieth century to the present.

366. Studies in Poetry. (3:3:0) Independent Study also. Prerequisite: Engl 251.
Topics vary.

368. Literature of the Latter-day Saints. (3:3:0) Prerequisite: Engl 251.
Fiction, poetry, drama, folklore, personal essay, and other literature emerging from the LDS experience and expressing various perspectives on it.

371. English Literature to 1500: The Medieval Period. (3:3:0) Prerequisite: Engl 251, 291.
Principal works, mainly in translation, from Old and Middle English literature.

372. English Literature from 1500 to 1603: The Early Renaissance Period. (3:3:0) Prerequisite: Engl 251, 291.
English drama, poetry, and prose of the Tudor period.

373. English Literature from 1660 to 1780. (3:3:0) Prerequisite: Engl 251, 291.
Poetry, prose, and drama of the late seventeenth and eighteenth century, including major figures such as Dryden, Swift, Pope, Fielding, Johnson, and popular female writers.

374. English Literature from 1780 to 1832: The Romantic Period. (3:3:0) Independent Study also. Prerequiiste: Engl 251, 292.
Includes writings of Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries.

375. English Literature from 1832 to 1890: The Victorian Period. (3:3:0) Independent Study also. Prerequisite: Engl 251, 292.
Includes writings of Carlyle, Tennyson, the Brownings, Arnold, Dickens, Eliot, the Rossettis, Hopkins, and their contemporaries.

376. English Literature from 1890 to 1950: The Modern Period. (3:3:0) Prerequisite: Engl 251, 292.
Aspects of modernism from the aesthetic movement to the end of World War II, including the writings of Hardy, Shaw, Yeats, Conrad, Lawrence, Woolf, Joyce, Eliot, and their contemporaries.

377. Teaching English in Secondary Schools. (3:3:0) Prerequisite: ScEd 276R.
Theories and methods of teaching English and language arts to secondary school students. Required for English teaching majors and minors before student teaching.

378. Teaching Reading in Secondary Schools. (3:3:0) Prerequisite: ScEd 276R.
Theories and methods of teaching reading and reading skills to secondary students. Required before student teaching.

380. English Literature from 1950 to the Present: The Contemporary Period. (3:3:0) Prerequisite: Engl 251, 292.
Important literature and literary trends since 1950.

381. Chaucer. (3:3:0) Prerequisite: Engl 251, 291.
Intensive study of Chaucer's literature and language from medieval and modern perspectives.

382. Shakespeare. (3:3:0) For English majors and minors. Independent Study also. Prerequisite: Engl 251, 291.
Intensive reading, discussion, and (in some sections) viewing of plays from the comedy, tragedy, romance, and history genres.

383. Milton. (3:3:0) Prerequisite: Engl 251, 291.
Analysis of poetry and selected prose, including detailed study of *Paradise Lost, Paradise Regained,* and *Samson Agonistes.*

384R. Major Authors. (3:3:0) Prerequisite: Engl 251.
Topics vary.

385. English Literature 1603–1660: The Late Renaissance Period. (3:3:0) Prerequisite: Engl 251, 291.
English drama, poetry, and prose of the Stuart period.

391. Introduction to Folklore. (3:3:0)
Major types of folklore (e.g., myth, legend, folktale, folksong, custom, and belief); practical experience in collecting folklore.

392. American Folklore. (3:3:0)
American folk art and literature and the historical and cultural circumstances from which they developed.

393R. Studies in Folklore. (3:3:0) Prerequisite: Engl 391.
Focused themes and topics in folklore. Topics may include regional or transnational folklore, folklore genres, folk groups, ethnographic research, cross-disciplinary issues, and history of folklore studies.

395R. Studies in Literature. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 251.
Topics vary.

396. Studies in Women's Literature. (3:3:0)
Female-authored literary texts and literary theory concerning women. A core class for the women's studies minor.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: consent of cooperative education coordinator.
On-the-job training.

415R. Professional Writing Workshop. (3:3:0 ea.) Prerequisite: a GE Advanced Writing course.
Developing proficiency in professional writing through rhetorical analysis, project management, and revision. Emphasis may vary with instructors.

418. Document Design and Portfolio. (3:3:0) Prerequisite: a GE Advanced Writing course.
Instruction in designing and preparing documents and in creating a professional portfolio of the student's technical, professional, and/or scholarly writing.

419R. Creative Writing Projects. (3:3:0 ea.) Prerequisite: Engl 318R, 319R, or 320R.
Individual major creative writing projects: novel, novella, play, poetry collection, short stories, or essays.

420. Literature for Adolescents. (3:3:0) Independent Study also. Prerequisite: Engl 251.
Wide range of literature written for or read by teenagers. Required for English teaching majors.

423. Teaching Composition in Secondary Schools. (3:3:0) Prerequisite: ScEd 276R.
Theories and methods of teaching writing to secondary school students. Required for all English teaching majors and minors.

424. Rhetoric and Teaching Academic Writing. (3:3:0)
Principles of rhetoric and language applied to teaching academic writing at the college level. Recommended for all prospective college English teachers.

426. History of Rhetoric. (3:3:0)
Historical traditions of rhetorical theory and practice, emphasizing Greek and Roman traditions.

427. Rhetorical Theory and Criticism. (3:3:0)
Theories of rhetoric and their use in interpreting and evaluating rhetorical acts and artifacts, including literature, with an emphasis on contemporary rhetorical theory.

428R. Studies in Rhetoric and Composition. (3:3:0)
Topics vary.

451. Literary Theory and Criticism 1: The Critical Tradition. (3:3:0) Prerequisite: Engl 251.
Historical survey from Plato to the early twentieth century.

452. Literary Theory and Criticism 2: Contemporary Criticism. (3:3:0) Prerequisite: Engl 251.
Introduction to issues in twentieth-century literary criticism.

479. Secondary Student Teaching Seminar. (1:1:0) Prerequisite: Engl 377, 378.
Issues experienced during secondary student teaching practicum.

490R. Individual Readings in English. (1–3:0:0 ea.) Prerequisite: department chair's consent.
Language and/or literature beyond what is offered in the curriculum. May not be substituted for another catalog course.

495. The Senior Course. (3:3:0 ea.) Prerequisite: senior status; English major status.
In-depth study of a limited area of literature, language, or criticism. Content varies; requires research and writing.

499R. Honors Thesis. (1–6:0:0 ea.)
Does not count toward English major electives.

500-Level Graduate Courses (available to advanced undergraduates)

500R. Eminent American Writers. (1–3:3:0 ea.)
Different writers each semester.

510R. Eminent English Writers. (1–3:3:0 ea.)
Different writers each semester.

515R. Advanced Scholarly Writing. (3:3:0 ea.)
Workshop for potential graduate students, graduate students, and professionals in all disciplines in preparing the thesis, dissertation, book chapter, and article.

516. Advanced Technical Writing. (3:3:0) Prerequisite: Engl 316 or instructor's consent.
Advanced concepts, including literature of technical writing, liaison with technical staff, communication networks, rhetoric of graphics, and teaching and freelancing technical writing.

518R. Advanced Creative Writing. (3:3:0 ea.) Prerequisite: Engl 318R or 319R; Engl 419R; or instructor's consent.
Writing fiction, poetry, children/adolescent literature, drama, creative nonfiction (course content varies with instructor); individual consideration of manuscripts. Two sections may not be taken simultaneously.

520R. Studies in Theme and Form. (1–3:3:0 ea.)
Topics vary: literature and film, myth and archetype, science fiction, etc.

590R. Individual Readings in English. (1–3:0:0 ea.) Prerequisite: graduate coordinator's consent.
Language and/or literature beyond what is offered in the curriculum. May not be substituted for another catalog course.

599R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department chair's consent.
On-the-job training.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

English Faculty

Professors

Clark, Gregory (1985) BA, MA, Brigham Young U., 1972, 1977; PhD, Rensselaer Polytechnic Inst., 1985.
Crisler, Jesse S. (1993) BA, Trinity U., 1969; PhD, U. of South Carolina, 1973.
Cronin, Gloria L. (1984) BA, Canterbury U., New Zealand, 1968; MA, PhD, Brigham Young U., 1976, 1980.
Crowe, Christopher E. (1993) BA, Brigham Young U., 1976; MEd, EdD, Arizona State U., 1980, 1986.
Fox, Charles Jay (1980) BA, MA, Brigham Young U., 1965, 1967; PhD, Purdue U., 1971.
Geary, Edward A. (1968) BA, MA, Brigham Young U., 1960, 1963; PhD, Stanford U., 1971.
Hansen, Kristine (1987) BA, MA, Brigham Young U., 1973, 1981; PhD, U. of Texas, Austin, 1987.
Murphy, John J. (1984) BA, MA, St. John's U., 1956, 1961.
Norris, Leslie, Humanitites Professor of Creative Writing (1983) DipEd, MPhil, Southampton U., England, 1956, 1958.
Paxman, David B. (1988) BA, Brigham Young U., 1971; MA, PhD, U. of Chicago, 1972, 1982.
Tanner, John S. (1982) BA, Brigham Young U., 1974; PhD, U. of California, Berkeley, 1980.
Tanner, Stephen L., Ralph A. Britsch Humanities Professor of English (1978) BA, MA, U. of Utah, 1962, 1964; PhD, U. of Wisconsin, Madison, 1969.
Taylor, Sally T. (1978) BS, MA, Brigham Young U., 1960, 1965; PhD, U. of Utah, 1975.
Thayer, Douglas H. (1957) BA, Brigham Young U., 1955; MA, Stanford U., 1959; MFA, U. of Iowa, 1962.
Walker, Steven C. (1966) BS, MA, Brigham Young U., 1965, 1966; PhD, Harvard U., 1973.

Associate Professors

Baker, Roger G. (1999) BS, Brigham Young U., 1967; MS, U. of Utah, 1970; EdD, Brigham Young U., 1977.
Bennion, John S. (1989) BA, Utah State U., 1977; MA, Brigham Young U., 1981; PhD, U. of Houston, 1989.
Boswell, Grant M. (1984) BA, Brigham Young U., 1976; MA, PhD, U. of Southern California, 1982, 1985.
Duerden, Richard Y. (1988) BA, MA, Brigham Young U., 1979, 1981; PhD, U. of Chicago, 1989.
Harris, Claudia W. (1990) BA, U. of Minnesota, 1970; MEd, Georgia State U., 1975, 1978; PhD, Emory U., 1990.
Hatch, Gary L. (1992) BA, Brigham Young U., 1988; PhD, Arizona State U., 1992.
Howe, Susan (1988); BA, Brigham Young U., 1971; MA, U. of Utah, 1978; PhD, U. of Denver, 1989.
Johstoneaux, Raphael (1986) BS, MA, Brigham Young U., 1962, 1968; PhD, George Peabody Coll. of Vanderbilt U., 1980.
Jorgensen, B. W. (1975) BA, Brigham Young U., 1966; MA, PhD, Cornell U., 1969, 1978.
Larsen, Lance E. (1993) BA, MA, Brigham Young U., 1985, 1987; PhD, U. of Houston, 1993.
Lawrence, A. Keith (1992) BA, MA, Brigham Young U., 1977, 1980; PhD, U. of Southern California, 1987.
Lundquist, Suzanne E. (1984) BA, MA Brigham Young U., 1965, 1972; DA, U. of Michigan, 1985.
Nelson, Joyce (1990) BS, Utah State U., 1956; MS, Florida State U., 1971.
Plummer, Louise R. (1993) BS, MA, U. of Minnesota, 1980, 1984.
Siegfried, Brandie R. (1993) BA, MA, Brigham Young U., 1988, 1990; MA, PhD, Brandeis U., 1993.
Snyder, Phillip A. (1988) BA, MA, Brigham Young U., 1977, 1980; PhD, U. of North Carolina, Chapel Hill, 1988.
Sorensen, Peter J. (1990) BA, BA, MA, Brigham Young U., 1975, 1977, 1979; PhD, Washington State U., 1988.
Thomas, Paul R. (1980) BA, Brigham Young U., 1964; MA, U. of Virginia, 1967; DPhil, U. of York, England, 1982.
Thursby, Jacqueline (1996) BA, Idaho State U., 1985; MS, Utah State U., 1991; PhD, Bowling Green State U., 1994.
Wahlquist, Elizabeth (1962) BA, Brigham Young U., 1955; MA, MLit, Middlebury Coll., 1962, 1971.
Young, Bruce W. (1983) BA, Brigham Young U., 1975; MA, Columbia U., 1976; AM, PhD, Harvard U., 1978, 1983.
Zimmerman, Beverly B. (1993) BA, PhD, Brigham Young U., 1967, 1994.

Assistant Professors

Burton, Gideon (1994) BA, Brigham Young U., 1989; MA, MPW, PhD, U. of Southern California, 1994.
Christiansen, Nancy L. (1994) BA, MA, Brigham Young U., 1976, 1983; PhD, U. of California, Los Angeles, 1994.
Cutchins, Dennis R. (1997) BA, MA, Brigham Young U., 1990, 1992; PhD, Florida State U., 1997.
Cutler, Edward S. (1996) BA, MA, Brigham Young U., 1990, 1992; PhD, U. of California, San Diego, 1997.
Dean, Deborah (1999) BA, Brigham Young U., 1988; MEd, City U., New York, 1994; EdD, Seattle Pacific U., 1999.
Eliason, Eric A. (1997) BA, Brigham Young U., 1992; MA, PhD, U. of Texas, Austin, 1994, 1997.

Grierson, Sirpa T. (1997) BEd, U. of British Columbia, Canada, 1974; MLIS, Brigham Young U., 1992; PhD, U. of Southern Mississippi, 1996.
Hickman, Trenton L. (2000) BA, MA, Brigham Young U., 1994, 1996; PhD, State U. of New York, Stony Brook, 2000.
Mason, Nicholas A. (1999) BA, MA, Brigham Young U., 1993, 1995; PhD, State U. of New York, Stony Brook, 1999.
McInelly, Brett C. (2000) BA, Weber State U., 1992; MA, Brigham Young U., 1995; PhD, U. of Cincinnati, 2000.
Muhlestein, Daniel K. (1993) BA, MA, Brigham Young U., 1984, 1987; PhD, Rice U., 1992.
Paul, Danette (1996) BA, MA, Brigham Young U., 1987, 1989; PhD, Pennsylvania State U., 1996.
Perry, Dennis R. (2000) BA, MA, Brigham Young U., 1979, 1981; PhD, U. of Wisconsin, Madison, 1986.
Petersen, Zina N. (1995) BA, Brigham Young U., 1987; MA, PhD, Catholic U., 1990, 1997.
Rudy, Jill Terry (1996) BA, MA, Brigham Young U., 1987, 1990; PhD, Indiana U., 1997.
Talbot, John (2001) BA, U. of Utah, 1990; MA, PhD, Boston U., 1993, 2001.
Thorne-Murphy, Leslee (2002) BA, MA, Brigham Young U., 1990, 1993; PhD, Brandeis U., 2001.
Wickman, Matthew F. (2000) BA, Brigham Young U., 1992; MA, New York U., 1994; PhD, U. of California, Los Angeles, 2000.

Associate Teaching Professor
Shakespeare, William O. (1974) BA, MA, PhD, Brigham Young U., 1970, 1982, 1996.

Assistant Teaching Professor
Bird, Penny C. (1992) BA, MA, Brigham Young U., 1970, 1996.

Part-Time Instructors

Adams, Joyce	Henderson, GaeLyn	Nickell, Samila
Bell, Kristi	Jackson, Matthew	Pollington, Mary
Black, Dianna	Jackson, Nathan	Preto-Bay, Ana
Boswell, Lisa	Jackson, Sherland	Rutter, Michael
Clark, Linda	Johstoneaux, Pamela	Snyder, Delys
Cutler, Mary Lynn	Miller, Susan	Wistisen, Nicole
Gunn, Nancy	Newell, Neil	Young, Margaret

Emeriti
Alder, Zane G. (1955) BS, MS, Utah State U., 1948, 1956.
Arnold, Marilyn (1969) BS, MS, Brigham Young U., 1957, 1958; PhD, U. of Wisconsin, 1968.
Ballantyne, VerDon W. (1963) BS, MA, Brigham Young U., 1961, 1964.
Beecher, Maureen Ursenbach (1980) BS, Brigham Young U., 1958; MA, PhD, U. of Utah, 1966, 1973.
Bell, Elouise M. (1963) BA, U. of Arizona, 1957; MA, Brigham Young U., 1959.
Bennion, George C. (1961) BA, Brigham Young U., 1949.
Best, Brian S. (1960) BS, MA, Brigham Young U., 1958, 1962; PhD, U. of Wisconsin, Madison, 1971.
Best, Lorna Ruth Nielsen (1958) BA, MA, Brigham Young U., 1956, 1962.
Blanch, Mae (Mable) (1959) BA, Brigham Young U., 1950; PhD, U. of Colorado, 1966.
Calder, Rose Eyring (1965) BA, Brigham Young U., 1932; MA, Columbia U., 1936; PhD, U. of California, Berkeley, 1944.
Clark, Bruce B. (1950) BA, U. of Utah, 1943; MA, Brigham Young U., 1948; PhD, U. of Utah, 1951.
Clark, Marden J. (1949) BA, MA, Brigham Young U., 1948, 1949; PhD, U. of Washington, 1957.
Cox, Soren F. (1955) BA, MA, Brigham Young U., 1952, 1956; PhD, U. of Minnesota, Minneapolis, 1964.
Cracroft, Richard H. (1963) BA, MA, U. of Utah, 1961, 1963; PhD, U. of Wisconsin, Madison, 1969.
Craig, Marshall R. (1953) BS, Brigham Young U., 1941; MA, PhD, Columbia U., 1947, 1968.
Ellsworth, Richard G. (1958) BA, MA, Brigham Young U., 1951, 1952; PhD, U. of Maryland, College Park, 1959.
Evans, David Louis (1954) BA, Idaho State U., 1948; MA, PhD, U. of Utah, 1953, 1968.
Farnsworth, Dean B. (1953) BA, MA, U. of Utah, 1946, 1947; PhD, U. of California, Berkeley, 1950.
Gassman, Byron W. (1960) BA, Brigham Young U., 1955; MA, PhD, U. of Chicago, 1956, 1960.
Harris, John B. (1958) BA, MA, Brigham Young U., 1955, 1956; PhD, Wayne State U., 1965.
Harris, John S. (1962) BA, MA, Brigham Young U., 1953, 1958.
Hart, Edward L. (1952) BS, U. of Utah, 1939; MA, U. of Michigan, 1941; DPhil, Oxford U., England, 1950.
Hayes, Darwin L. (1961) BA, MA, Brigham Young U., 1957, 1963.
Hendrickson, A. Lemar (1963) BS, MS, Utah State U., 1938, 1941.
Hooker, Joyce S. (1980) BS, U. of Idaho, 1955; MIE, Utah State U., 1979.
Hunsaker, O. Glade (1964) BS, Utah State U., 1960; MA, Brigham Young U., 1964; PhD, U. of Illinois, 1970.
Jacobs, Briant S. (1946) BA, Brigham Young U., 1939; PhD, U. of Iowa, 1944.
Lambert, Neal E. (1966) BA, PhD, U. of Utah, 1961, 1966.
McKellar, J. Glen (1964) BA, MA, Brigham Young U., 1960, 1962; PhD, U. of Colorado, 1967.
McKendrick, John E. (1953) BA, MA, U. of Utah, 1942, 1949.
Monson, Samuel C. (1952) BS, Utah State U., 1941; MA, PhD, Columbia U., 1948, 1952.
Pedersen, Elray (1983) BS, MA, Brigham Young U., 1962, 1964; PhD, U. of Minnesota, 1977.
Ream, Susan E. (1961) BA, Brigham Young U., 1953; MA, Columbia U., 1958.
Ridenhour, Ted E. (1959) BA, MA, Brigham Young U., 1957, 1960.
Rigby, W. Dean (1966) BA, MA, Brigham Young U., 1953, 1970.
Tate, Charles D. (1960) BS, MS, Utah State U., 1954, 1958; PhD, U. of Colorado, 1966.
Thomas, Gordon K. (1976) BA, MA, Brigham Young U., 1959, 1960; PhD, Tulane U. of Louisiana, 1968.
Thomas, John Alfred (1962) BA, MA, Brigham Young U., 1953, 1954; PhD, U. of Maryland, College Park, 1962.
Thomson, Woodruff C. (1950) AA, Snow Coll., 1936; BA, MA, PhD, U. of Utah, 1938, 1949, 1962.
Waterstradt, Jean Anne (1945) AA, Weber Coll., 1943; BA, Brigham Young U., 1945; MA, U. of Southern California, 1955.
West, Dale H. (1947) BA, Brigham Young U., 1940; MA, U. of Southern California, 1955; EdD, U. of Colorado, 1962.
Wight, Marjorie (1963) BA, Brigham Young U., 1943; MA, U. of California, Los Angeles, 1958; PhD, U. of Southern California, 1967.
Williams, Ray S. (1966) BA, Coker Coll., 1960; MA, PhD, Florida State U., 1962, 1965.
Wilson, William A., Humanities Professor of Literature and Folklore, (1984) BA, MA, Brigham Young U., 1958, 1962; PhD, Indiana U., 1974.

English as a Second Language

See Linguistics and English Language section of this catalog.

Estonian

See Germanic and Slavic Languages.

School of Family Life

James M. Harper, Director
380-H SWKT, (801) 422-9094

Thomas B. Holman, Associate Director for Outreach
380-B SWKT, (801) 422-7170

Susanne F. Olsen, Associate Director for Curriculum
380-A SWKT, (801) 422-7170

D. Russell Crane, Director of Family Studies Center
350-C SWKT, (801) 422-4452

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the School of Family Life are open enrollment. However, special limitations apply for teaching majors.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course)	0–3.0 hours
(or Math ACT score of at least 22)	
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS	Home and Family Life
BS	Family and Consumer Sciences Education
BS	Marriage, Family, and Human Development
Minors	Marriage, Family, and Human Development
	Gerontology

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Marriage, Family, and Human Development
MS	Marriage and Family Therapy
MS	Youth and Family Recreation
PhD	Marriage, Family, and Human Development
PhD	Marriage and Family Therapy
PhD	Sociology with Emphasis in Studies of the Family

For more information see the BYU 2003–2004 Graduate Catalog.

School of Family Life

Family Life (FamLf)

Undergraduate Course

100. Strengthening Marriage and Family: Proclamation Principles and Scholarship. (3:3:0) F, W

Understanding, applying, and sharing principles of successful marriage and family life from the LDS proclamation on the family, using sacred and scholarly perspectives.

305. Family, School, and Community Partnerships. (2:2:0.5) Prerequisite for TESOL teaching minors: concurrent enrollment in ElEd 477R or ScEd 477R. There are no prerequisites for non-TESOL teaching students.

Standards, principles, policies, and processes for partnering with parents, families, schools, and communities in fostering and sustaining the development of children and youth.

Family Life and Home Economics Education

The Discipline

Family life and home economics majors examine theories, research, and practices related to the quality of family life in homes. The bachelor's degree is interdisciplinary and provides opportunity to study a composite of many facets of home and family living. Two degrees are offered. Home and family life is for those who do not plan to teach. Family and consumer sciences education is the licensing degree to teach in the public school system. Either degree is a good foundation for those interested in graduate work in the social sciences and other fields.

Career Opportunities

Each of the program's two majors educates both men and women for professions in a ready job market that is eager to hire those able to link theories of home and family to practical application in education, business, communication, the extension service, and other government and community agencies. The two majors support easy entry into cottage industry, entrepreneur, and consumer consultant endeavors. A choice of internships is available.

BS Home and Family Life (43–45 hours*)

Major Requirements

1. At least 15 hours of major credit must be taken in residency at BYU.
2. Complete the following:
   FamLf 100.
   FL&HE 110, 150, 282.
   MFHD 210, 321, 350.
   NDFS 100.
3. Complete two courses from the following:
   FL&HE 185R, 287, 297, 380, 387, 397, 480, 485.
4. Complete two courses from the following:
   FL&HE 230, 381R.
   PAS 112.
   VADes 102, 328.
5. Complete at least 5 hours from the following:
   FL&HE 180, 335, 340.
   MFHD 450.
6. Complete one course from the following:
   MFHD 301, 302.
7. Complete one course from the following:
   MFHD 333, 340.

Recommended Courses

FL&HE 399R, 435R.

*Hours include courses that may fulfill GE or university requirements.

BS Family and Consumer Sciences Education (78–81 hours*, including licensure hours)

Major Requirements

1. At least 15 hours of major credit must be taken in residency at BYU.
2. Complete the following:
   FamLf 100.
   FL&HE 110, 150, 185R, 230, 282, 340, 475.
   MFHD 210, 321, 322, 350.
   NDFS 100.
3. Complete at least two courses from the following:
   FL&HE 287, 297, 387, 397, 480, 485.
   TMA 462.
4. Complete at least two courses from the following:
   FL&HE 381R.
   PAS 112.
   VADes 102, 328.
5. Complete two courses from the following:
   FL&HE 180, 335.
   MFHD 371, 450.
   NDFS 201.
6. Complete one course from the following:
   MFHD 301, 302.
7. Complete one course from the following:
   MFHD 333, 340.
8. Complete one course from the following:
   NDFS 200, 201, 250/251.
9. Complete the Professional Education Component (22–23 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

Family Life and Home Economics Education (FL&HE)

Undergraduate Courses

110. Basic Food Preparation. (2:1:2)
Principles of cooking and skill development in food preparation techniques. Lab required. Fee.

130. Design in Everyday Living. (3:2:1)
Applying design principles and elements to foods, clothing, interiors, and resource management as they affect family relationships and development. Basic CAD experience. Lab required.

150. Principles of Home and Family Life. (3:3:0)
Examines home as a fundamental civilizing influence; integrates theories of family science and home economics.

180. Clothing the Family. (3:3:0)
Comprehensive approach to consumer economics of clothing selection and care for individuals across the family life cycle and across cultures. Adapting clothing to meet diverse individual (physical and psychological) needs in the market-oriented economy.

185R. Beginning Clothing Construction. (3:3:5 ea.)
Unit method of clothing construction, with projects individualized to student experience. Student-supplied materials required.

230. Housing the Family. (3:3:0)
Social-psychological, economic, and political aspects of housing families; making selections that will enhance the quality of housing, increase productivity, and protect the health, safety, and well-being of the family across the life cycle.

282. Textiles. (3:3:2)
Natural and synthetic textile fibers, yarns, fabric construction, dyes, and finishes. Care and performance of textile fabrics for clothing and household use.

287. Intermediate Clothing Construction. (3:3:5) Prerequisite: FL&HE 185R or equivalent sewing skills.
Assessing and executing various construction methods, including construction of several full-scale garments. Student-supplied materials required. Fee.

297. Intermediate Clothing: Fitting. (3:3:5) Prerequisite: FL&HE 287.
Principles and methods of pattern alteration; apparel fitting for figure variations. Construction of apparel to apply and test fitting principles and learnings. Student-supplied materials required.

335. Household Equipment. (3:2:4)
Selection and performance of cookware and small and large household appliances; equipment function based on physical science principles; consumer use and energy conservation.

340. Family Meal Management. (2:1:3) Prerequisite: FL&HE 110 or instructor's consent.
Organizing and managing time, energy, finance, and nutrition in planning, preparing, and serving family meals; ethnic and cultural diversity in etiquette and meal planning. Lab required. Fee.

380. Psychology and History of Apparel. (3:3:0)
Costume, clothing, and textiles as mediums for understanding the stages and states of individuals, families, and societies; apparel diversity and cultural identity.

381R. Textile Design. (3:1:4 ea.)
Various components, including color and textural effects, of designing textiles. Development of structural and applied design abilities through hand-production methods and computer-integrated design systems.

387. Advanced Clothing Studies: Patternmaking. (3:3:5) Prerequisite: FL&HE 287 or equivalent sewing skills.
Flat pattern design, basic drafting, and basic draping for apparel. Student-supplied materials required.

395R. Special Topics in Home Economics. (1–3:Arr.:0 ea.)
Various topics in home economics.

397. Advanced Clothing Studies: Construction and Decorative Work. (3:3:5) Prerequisite: FL&HE 287 or equivalent sewing skills.
Advanced and decorative clothing construction techniques in a variety of specialty fabrics. Fee.

399R. Academic Internship: Home Economics. (1–9:0:0 ea.) Prerequisite: cooperative education coordinator's consent.
Supervised on-the-job experience in clothing.

435R. Culinary Arts and Quantity Foods. (1–3:Arr.:Arr. ea.) Prerequisite: family and consumer sciences education or home and family life major status; or instructor's consent.
Theory and skills in food service preparation for teaching or supervising caterers, apprentice chefs, and/or food managers. Foods occupational endorsement in (1) occupational and (2) free enterprise opportunities.

475. Curriculum Development in Home Economics Education. (3:3:0) Prerequisite: senior majoring in family and consumer sciences education; concurrent enrollment in ScEd 276R and 376R.
Capstone experience integrating theory and practice in teaching home economics in secondary school systems.

480. Fashion Strategies. (3:3:0)
Theories of fashion strategies and changes. Issues in apparel design, production, manufacturing, and merchandising, including wholesale and retail marketing operations in the apparel industry.

485. Tailoring. (3:2:4) Prerequisite: FL&HE 297, advanced skill level, and instructor's consent.
Custom and commercial tailoring techniques, shaping, and multilayer construction methods. Student-supplied materials required.

488. Occupational Home Economics Education. (3:3:0)
History, philosophy, theory, and application of occupational/vocational guidelines and requirements.

489. The Family and Public Policy. (3:3:0)
Investigation of public policy processes related to legislation and laws affecting home economics/home and family life. Funding and grantsmanship.

Marriage, Family, and Human Development

The Discipline

The discipline examines theories, research, and practices related to optimal human development and the quality of life in families. Family scholarship provides (1) frameworks by which human development and family behavior can be explained, (2) applications of principles and skills that contribute to quality family relationships and appropriate use of family resources, and (3) research that addresses optimal human development, the wise use of family resources, and the well-being of family members.

Career Opportunities

A bachelor's degree in marriage, family, and human development is a broad, liberal arts degree designed to help individuals reach the goals that are outlined in the LDS proclamation on the family. In addition, majors in marriage, family, and human development (MFHD) can be employed in settings where knowledge of human behavior, interpersonal interaction, family well-being, and family use of resources is valued. Typically the majority of employment opportunities in the field require further study, and many students use the bachelor's degree as a springboard into graduate work in the social sciences, law, medicine, etc. However, recent graduates with internship experience have found entry-level employment in research centers, Head Start, child care programs, social services, mental health agencies, hospitals, private and clinical practice settings, extension services, geriatrics, programs for special needs children and teens, residency homes for troubled adolescents, financial debt and credit counseling, foster care and divorce mediation, and other agencies (e.g., Red Cross, United Way). Examples of other types of work with families that are facilitated with a bachelor's degree are listed below:

Teaching in the community: Some students are interested in receiving a provisional Certified Family Life Educator (CFLE) credential along with a BS degree. The BYU MFHD "marriage and family life educator" focus is accredited by the National Council on Family Relations (NCFR) and students can submit an application along with the application fee at graduation time. Students desiring this credential should consult with a faculty advisor or student representative for current information. This credential prepares students for teaching in community settings but not in public, state-run schools. A CFLE is not always required for employment but may be an additional proof of specialization in the family field.

Teaching in public schools: For students who are interested in teaching opportunities in public schools, a major in early childhood education licensure is available through the Teacher Education Department in the McKay School of Education. This license qualifies individuals to teach kindergarten through third grade in public and private schools. However, an early childhood emphasis is offered in MFHD for students preparing for family life and/or vocations that do not require licensure (see below).

Students who are interested in teaching family and consumer sciences (home economics) in secondary schools (grades 7–12) should contact the family and consumer sciences education program in the School of Family Life.

Internships and Professional Organizations

The field of family scholarship is growing nationally and internationally. Undergraduate students may find it helpful to take advantage of internships and professional organizations and to prepare for graduate studies.

Internships: Excellent internships are available to gain experience in family-related employment. An internship is not required to complete the degree but is a highly recommended addition to a program of study. Consult with the internship coordinator and register for MFHD 399R.

Professional organizations affiliated with MFHD study: There are a variety of national, state, and university professional groups. We encourage students to get involved at any or all levels. For information, contact a faculty member, advisor, or student officer in one of the university organizations.

BS Marriage, Family, and Human Development

(45 hours*)

Major Requirements

1. MFHD majors can take any combination of undergraduate MFHD R courses for a total of 12 hours toward graduation, but not to exceed 9 hours for any one course. The one exception is MFHD 492R (Teaching Assistance), which is limited to 6 hours.
2. At least 15 hours of major credit must be taken in residency at BYU.

3. Complete the following core courses (students are encouraged to take these early in their program):
   FamLf 100.
   MFHD 160, 210, 250, 300.
4. Complete 30 additional hours from MFHD courses. Students wanting to focus in a particular area may consider some of the possibilities listed below. (These are not separate degree tracks, but they are possible areas of focus):

Child and Family Services
Recommended Courses
MFHD 340, 356, 360, 430, 461, 465; some combination of 332, 333, 334, and/or 399R.

Early Childhood
Complete the following:
BusM 300.
MFHD 321, 322, 331, 332, 340, 354, 355, 420.
Recommended Courses
MFHD 351, 352, 353, 399R.

Family Financial Services
Complete five courses from the following:
FL&HE 230.
MFHD 350, 356, 371, 399R, 450, 461, 472.

Human Development
Recommended Courses
MFHD 330, 331, 332, 333, 334, 340, 351, 352, 353, 399R, 410.

Marriage and Family Life Educator
Complete the following in addition to the core:
MFHD 301, 302, 334, 340, 350, 360, 370, 371, 461, 498. (These courses will prepare students who want to apply for the Certified Family Life Educator certificate.)

Recommended Courses

Students interested in applying to graduate programs should consider enrolling in the following applicable courses:
Statistics: Stat 221 or Soc 306 or Psych 301.
Statistical packages: Soc 303R.
Research methods: MFHD 300.
Marriage and family therapy: Psych 342, 378.
Human development: MFHD 330, 351.
Family life: MFHD 371, 480.

*Hours include courses that may fulfill GE or university requirements.

Minor Marriage, Family, and Human Development

(18 hours*)

Minor Requirements

1. Complete the following:
   FamLf 100.
   MFHD 160, 210.
2. Complete 9 hours of any 300- and 400-level MFHD courses.

*Hours include courses that may fulfill GE or university requirements.

Minor Gerontology (15 hours)

Minor Requirements

1. Course list must receive approval from the director:
   Dr. Rick Miller, 350-D SWKT, telephone: (801) 422-2860, fax: (801) 422-0225, e-mail: rick_miller@byu.edu
2. Complete 3 hours from one of the following:
   Hlth 496R.
   MFHD 399R.
   RMYL 496R.
3. Complete 6 hours from the following:
   Hlth 466.
   MFHD 334.
   RMYL 307.
   Soc 365.
4. Complete 6 hours from the following:
   Geog 501R.
   Hlth 496R.
   MFHD 399R, 410.
   NDFS 100.
   PDBio 205, 222.
   Psych 322, 342.
   RMYL 496R.
   SocW 366, 567.
   Other electives approved by the academic advisor.

Marriage, Family, and Human Development (MFHD)

Undergraduate Courses

160. Introduction to Family Processes. (3:3:0) F, W, Sp, Su Honors and Independent Study also.
Ways of strengthening family life by understanding such family processes as generations, emotions, communication, and rituals.

210. Human Development. (3:3:0) Independent Study also.
Growth and development of the child from conception through adolescence; influences of family, peers, and schools.

250. Theories in Family Perspective. (3:3:0) Prerequisite: MFHD 160, 210.
Introduction of major theoretical perspectives and of philosophical issues. Readings include representative papers applying theoretical and philosophic tenets.

300. Critical Inquiry and Research Methods. (3:3:0) Prerequisite: MFHD 160, 210, or instructor's consent.
Philosophies of critical inquiry. Principles of designing, conducting, and reporting social science investigations.

301. Preparation for Marriage. (3:3:0)
Factors related to quality relationships, mate selection, and the transition into marriage.

302. Marriage Enhancement. (3:3:0)
Designed primarily for those who are married or engaged. Couples are encouraged to enroll together.

319. The Family in Fiction. (3:3:0)
Concepts, theories, and insights about family life as illustrated in various works of great literature.

321. Foundations of Developmentally Appropriate Practices in Programs for Young Children. (2:2:0) F, W, Sp, Su Prerequisite: MFHD 210.
Historical, philosophical, organizational, and curricular issues related to developmentally appropriate practices in programs for young children.

Note: Due to enrollment constraints, MFHD 321 may not be retaken to improve a grade unless approved by the Child and Family Studies Laboratory Steering Committee.

322. Practicum in Developmentally Appropriate Practices. (2:0:12) F, W, on blk.; Su Prerequisite: MFHD 210, 321; 340 or concurrent enrollment.
Initial practicum with young children to increase understanding of socialization and learning processes, to create meaningful learning opportunities, and to implement developmentally appropriate practices.

Note: Due to enrollment constraints, MFHD 322 may not be retaken to improve a grade unless approved by the Child and Family Studies Laboratory Steering Committee.

324. Teaching Children a Second Language. (3:2:1)
Strategies for teaching children a second language in the home and in the classroom. Practice teaching in lab school.

330. Biological Foundations of Human Development. (3:3:0) Prerequisite: MFHD 210.
Biological, genetic, and neurological foundations of human development and their interactions with family socialization processes.

331. Infant Development in the Family. (3:3:0)
Conception, prenatal development, pregnancy. Physical, cognitive, and social development of the first twenty-four months. Implications for guidance and care in the family.

332. Early and Middle Child Development in the Family. (3:3:0) Prerequisite: MFHD 210.
Advanced study of theory, developmental research, and practice associated with three- to eleven-year-old children in the context of the family and the relative influences of genetics, school, and peer group.

333. (MFHD-Soc 318) Adolescent Development in the Family and Other Social Contexts. (3:3:0) F, W
Examining the developmental and social contexts of adolescents with emphasis on the importance of the family. Other contexts include peers, religion, community, schools, and cross-cultural issues.

334. Adult Development and Aging in the Family. (3:3:0) Prerequisite: MFHD 160 or instructor's consent.
Adjustments to physical, emotional, social, and economic changes. Needs arising from changes in family relationships, living arrangements, and employment; retirement planning.

340. Parenting and Child Guidance. (3:3:0) Independent Study also.
Theories and skills related to quality parent-child relationships.

350. Family Money Management 1. (3:3:0)
Principles in family science applied to family money management.

351. Social Development. (3:3:0) Prerequisite: MFHD 210 or instructor's consent.
Processes and sequences of social development.

352. Cognitive Development. (3:3:0)
Development of mental abilities; effects of maturation and learning on memory, perception, attentional processes, intelligence, social cognition.

353. Moral Development. (3:3:0) Prerequisite: MFHD 250.
Moral traditions, normative ethics, psychological theories, social contexts and theories of social and moral development.

354. Cross-Cultural Family and Human Development. (3:3:0)
Comparative study of familial, social, and other factors in development.

355. Language Development. (3:3:0) Prerequisite: MFHD 210 or 250 or instructor's consent.
Philosophical, social, intellectual, and emotional contexts of language acquisition and usage.

356. Interactional Interviewing Skills in Family Sciences. (3:3:1) F, W, Sp
Interactional counseling techniques, issues, and theories; skill development in dyadic and family interaction observation. Lab required.

360. Family Adaptation and Resiliency. (3:3:0) Prerequisite: MFHD 160.
Understanding family resiliency and building family strengths in normative transitions (birth, death, job) and nonnormative transitions (divorce, disability, remarriage, poverty, violence). Developing familial, social, religious, and instrumental resources to adapt positively to these transitions.

370. Families in Communities. (3:3:0)
How families successfully interact with their external contexts (school, church, workplace, legal system, health care, media, etc.) in patterns of mutual influence.

371. Work and Relationships in the Home. (3:3:0) Prerequisite: MFHD 160.
Theoretical and practical implications of interplay between household work, family relationships, and human resource development.

375. Family Economics and Aging. (3:3:0)
Economic challenges relating to the elderly and their families. Specifically designed for students seeking certification in gerontology.

395R. Special Topics in Marriage, Family, and Human Development. (1–3:0:0 ea.) Independent Study also. Prerequisite: instructor's consent.
Topics include the single adult in family and society, duolingual parenting, and readings in family sciences.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: program coordinator's consent.
Supervised local and out-of-state professional experiences (45 hands-on hours required per credit). Opportunity to link academic learning with experience in field. Parallel and immersion programs available.

403R. Research Practicum. (3:1:2 ea.) Prerequisite: MFHD 300.
Research experience in a project directed by a faculty member.

410. Advanced Issues in Human Development. (3:3:0) Prerequisite: MFHD 210.
Evaluation of research on physical, mental, emotional, and social development.

420. Administering Programs for Young Children. (2:2:0) Prerequisite: MFHD 321, 322.
Strategies for planning and administrating quality programs in settings for young children. Budgeting, staffing, accrediting, selecting equipment, etc.

430. Forming Marital Relationships. (3:3:0) Prerequisite: MFHD 300 or instructor's consent.
Critical analysis of literature regarding dating, spouse selection, and transition to marriage processes leading to successful marriage. Preparation for research and teaching in the field.

450. Family Money Management 2. (3:3:0) Prerequisite: MFHD 350.
Theory and practice in family science applied to family money management.

461. The Family and the Law. (3:3:0) Prerequisite: MFHD 160.
Legal environment of the family system, with emphasis on husband-wife and parent-child relationships, rights, and responsibilities.

465. Survey of Marriage and Family Enrichment/Therapy Approaches. (3:3:0) F Prerequisite: MFHD 160 or instructor's consent.
Theories and techniques. Professional family enrichment and therapy applied to couples and families.

472. Temporal Welfare in Families. (3:3:0) Prerequisite: MFHD 160 or instructor's consent.
Assumptions, philosophy, and theory accounting for resource allocation, use, and meaning in families.

480. Moral Foundations of Family Life. (3:3:0) Prerequisite: junior standing or instructor's consent.
How the moral domain is central to human experience; implications for family life of theories and practices that acknowledge agency and the ethical.

492R. Supervised Instructional Experience. (1–3:Arr.:Arr. ea.) F, W, Sp, Su
Course-related instructional experiences under supervision of faculty member.

498. Family Life Education. (3:3:0) Prerequisite: senior standing; instructor's consent.
Developing competencies in basic principles of family life education: curriculum design, development, implementation, and evaluation.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Workshop in Marriage, Family, and Human Development. (1–2:2:0 ea.) Prerequisite: 8 hours in marriage, family, and human development or department chair's consent.
Intensive study in applying principles of specified family sciences, subject matter in early childhood education, child development, family relationships, family resource management, or marriage/family therapy.

510. Seminar in Intellectual Development. (3:3:0) Prerequisite: MFHD 514.
Current theories and research on intellectual development.

511. Familial Influences on Children's Social Development. (3:3:0) Prerequisite: MFHD 330 or equivalent.
Current theories and research on social development, peer relations, and behavior. Familial/parenting effects as moderated by beliefs, genetics, gender, social cognitions, culture, child guidance, interventions.

512. Emotional and Moral Development. (3:3:0) Prerequisite: instructor's consent.
Research, theories, and educational implications; preschool through adulthood.

514. Theories of Human Development. (3:3:0) Prerequisite: MFHD 330 or equivalent.
Models and concepts in dominant contemporary developmental theories.

520. Head Teachers Practicum in Preschool. (4:1:3) Prerequisite: MFHD 322 or equivalent.
Head teaching proficiencies: guiding teachers of young children, techniques for involving parents, evaluating student teachers, assessing child performance, reviewing child guidance, and developing curriculum.

522R. Seminar in Early Childhood Education. (2:2:4 ea.) Prerequisite: MFHD 322 or equivalent.
Teacher skills: developing, applying, measuring, and evaluating effective techniques. Curriculum: selecting, organizing, and creating curriculum materials for young children.

540. Family Economics. (3:3:0)
Economic functioning of household; role of income, employment, and household production as determinants of family living level.

542. Work and Family. (3:3:0)
Introduction to contemporary work/family issues. Framework for helping parents and managers deal effectively with work/family issues at work and home.

545. Family Financial Resource Management. (3:3:0) Sp; Su even yr. Prerequisite: instructor's consent.
Applying theories and principles in managing financial resources to meet needs of individuals and families.

550. (MFHD-Soc) Contemporary Family Theories. (3:3:0) Prerequisite: MFHD 250, Soc 310, 311; or equivalents.
Introduction to basic micro, macro, and processual approaches to study of the family; social and political theory on the family; philosophical issues and assumptions underlying family theory, research, and practice.

551. Fathering: Scholarship and Intervention. (3:3:0) Prerequisite: instructor's consent.
Quality fathering across cultures and in varied family circumstances. Historical changes in fathering; challenges to good fathering; effective interventions with fathers.

561. Seminar in Family Law. (3:3:0) Prerequisite: concurrent enrollment in MFHD 461.
Intensive investigation of issues and concepts influencing legal aspects of marriage and family life.

566. Family Life Education in the University. (1–3:Arr.:0) Prerequisite: instructor's consent.
Delivering family life education in university settings. Working with a faculty mentor, making presentations, and preparing basic instructional materials.

567R. Practicum in Family Life Education. (1:1:0 ea.) Prerequisite: MFHD 566 or instructor's consent.
Supervised experience teaching family living courses in a university setting.

570. Paradigms in Family Process and Analysis. (3:3:0) Prerequisite: MFHD 371 or equivalent.
Alternative perspectives on family management, governance, and participation, with emphasis on modernist/management vs. familial orientations affecting leadership, parenting, autonomy and choice, altruism and individualism.

590R. Readings in Marriage, Family, and Human Development. (1–2:2:0 ea.) Prerequisite: instructor's consent.
Discussions and reports of current readings.

595R. Special Topics in Marriage, Family, and Human Development. (1–2:2:0 ea.) Prerequisite: for marriage, family, and human development major; instructor's consent.
Individual study for qualified students.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Marriage and Family Therapy (MFT)

Undergraduate Courses

330. Preprofessional Preparation for Marriage and Family Therapy. (1:1:0)
Overview of profession, licensing, and application to graduate study.

395R. Special Topics in Marriage and Family Therapy. (1–3:0:0 ea.) Prerequisite: instructor's consent.
Current important topics in the profession of marriage and family therapy.

403R. Research Practicum. (1–3:Arr.:0 ea.)
Research experience with professor and undergraduate team.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Workshop in Marriage and Family Therapy. (1–2:2:0 ea.) Prerequisite: instructor's consent.
Training in delivery of and research about psychoeducational programs for couples and families.

563. Theoretical Foundations of Family Systems. (3:3:0)
Systems theory and cybernetic approaches to family processes and epistemological issues.

590R. Readings in Marriage and Family Therapy. (1–2:2:0 ea.) Prerequisite: instructor's consent.
Discussions and reports of current readings.

595R. Special Topics in Marriage and Family Therapy. (1–2:2:0 ea.) Prerequisite: marriage and family therapy major status; instructor's consent.
Individual study for qualified students.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

School of Family Life Faculty

Professors

Beutler, Ivan F. (1981) BS, MS, Utah State U., 1969, 1970; MS, PhD, Purdue U., 1972, 1974.
Crane, D. Russell (1983) BA, California State U., Hayward, 1975; MS, PhD, Brigham Young U., 1978, 1979.
Day, Randal D. (1999) BS, MS, Brigham Young U., 1973, 1974; MS, U. of Wisconsin, Madison, 1975; PhD, Brigham Young U., 1979.
Dollahite, David C. (1993) BA, MS, Brigham Young U., 1983, 1985; PhD, U. of Minnesota, 1988.
Draper, Thomas W. (1982) BS, MS, Brigham Young U., 1971, 1973; PhD, Emory U., 1976.
Duncan, Steven F. (2000) BS, U. of Utah, 1980; MS, Brigham Young U., 1985; PhD, Purdue U., 1988.
Feinauer, Leslie L. (1984) BS, Brigham Young U., 1968; MS, U. of Utah, 1969; PhD, Brigham Young U., 1981.
Galbraith, Richard C. (1975) BS, Brigham Young U., 1971; MS, PhD, Northwestern U., 1973, 1975.
Harper, James M. (1979) BS, MS, Brigham Young U., 1974, 1976; PhD, U. of Minnesota, Minneapolis, 1979.
Hart, Craig H. (1992) BS, MS, Brigham Young U., 1980, 1982; PhD, Purdue U., 1987.
Hawkins, Alan J. (1990) BS, MS, Brigham Young U., 1979, 1984; PhD, Pennsylvania State U., 1990.
Holman, Thomas B. (1985) BA, Utah State U.; MREd, PhD, Brigham Young U., 1976, 1981.
Larson, Jeffry H. (1987) BS, MS, Brigham Young U., 1971, 1974; PhD, Texas Tech. U., 1980.
Mead, D. Eugene (1967) BA, U. of Oregon, 1956; MA, San Jose State Coll., 1963; EdD, U. of Oregon, 1967.
Miller, Richard B. (1999) BS, MS, Brigham Young U., 1982, 1984; PhD, U. of Southern California, 1989.
Olson, Terrance D. (1974) BS, MS, Brigham Young U., 1967, 1969; PhD, Florida State U., 1972.
Stahmann, Robert F. (1975) BA, Macalester Coll., 1963; MS, PhD, U. of Utah, 1965, 1967.
Watson, Wendy L. (1993) BA, U. of Hawaii, 1973; MS, Brigham Young U., 1975; PhD, U. of Calgary, Canada, 1984.

Associate Professors

Bahr, Kathleen S. (1970) BS, MS, Utah State U., 1968, 1970; PhD, Michigan State U., 1982.
Barlow, Brent Alvin (1977) BS, MA, Brigham Young U., 1966, 1968; PhD, Florida State U., 1971.
Burnham, Catherine (1992) BS, MEd, Brigham Young U., 1971, 1989; EdD, U. of Illinois, 1991.
Butler, Mark H. (1996) BS, MS, Brigham Young U., 1986, 1990; PhD, Texas Tech U., 1996.
Clarke, Maribeth (1996) BS, MS, Brigham Young U., 1980, 1983; PhD, Utah State U., 1995.
Hill, E. Jeffrey (1999) BA, MA, Brigham Young U., 1977, 1984; PhD, Utah State U., 1995.
Ingoldsby, Bron B. (2001) BS, Brigham Young U., 1974; MS, Utah State U., 1976; PhD, U. of Georgia, 1979.
Klein, Shirley R. (1986) BS, U. of Arizona, 1966; MS Brigham Young U., 1984, PhD, U. of Utah, 1990.
Olsen, Susanne Frost (1993) BS, MS, Brigham Young U., 1975, 1981; PhD, U. of Georgia, 1992.
Poduska, Bernard E. (1983) BA, MA, California State Coll., Fullerton, 1966, 1968; PhD, Brigham Young U., 1983.
Robinson, Clyde C. (1990) BS, MS, Brigham Young U., 1972, 1976; PhD, U. of North Carolina, Greensboro, 1982.
Rowley, Maxine Lewis (1979) BA, Brigham Young U., 1960; BA, U. of Utah, 1974; MS, Utah State U., 1979, PhD, Brigham Young U., 1989.
Scoresby, A. Lynn (1970) BS, MA, Brigham Young U., 1965, 1966; PhD, U. of Minnesota, Minneapolis, 1969.

Assistant Professors

Carroll, Jason S. (2001) BS, MS, Brigham Young U., 1996, 1998; PhD, U. of Minnesota, 2001.
Flom, Ross A. (2001) BS, U. of Minnesota, 1992; MEd, Idaho State U., 1993; PhD, U. of Minnesota, 1999.
Magarrell, Roberta I. (1999) BA, MS, PhD, Brigham Young U., 1964, 1989, 1995.
McCoy, J. Kelly (1996) BA, MS, Utah State U., 1984, 1987; PhD, U. of Georgia, 1992.
Nelson, David A. (2000) BS, Brigham Young U., 1995; PhD, U. of Minnesota, 1999.
Nelson, Larry J. (2000) BS, MS, Brigham Young U., 1994, 1996; PhD, U. of Maryland, 2000.
Porter, Christin L. (1996) BS, Brigham Young U., 1990; MS, PhD, Purdue U., 1992, 1996.
Thompson, Mary J. (1974) BS, Brigham Young U., 1961; MA, Washington State U., 1974; PhD, Brigham Young U., 1999.

Affiliated Faculty

Bahr, Stephen J., *Sociology*
Ballif-Spanvill, Bonnie, *Women's Research Institute*
Brinton, Bonnie, *Audiology and Speech Language Pathology*
Call, Vaughn R. A., *Sociology*
Callister, Lynn C., *Nursing*
Christiaens, Glenda, *Nursing*
Doxey, Cynthia, *Church History and Doctrine*
Duncan, Dean, *Theatre and Media Arts*
Forste, Renata T., *Sociology*
Fujiki, Martin, *Audiology and Speech Language Pathology*
Heaton, Tim B., *Sociology*
Hill, Brian J., *Recreation Management and Youth Leadership*
Jaccard, Jerry L., *School of Music*
Layne, Christopher M., *Psychology*
Mandleco, Barbara, *Nursing*
Marett, Kevin M., *Social Work*
Marshall, Elaine S., *Nursing*
Roby, Jini L., *Social Work*
Slife, Brent D., *Psychology*
Walton, Elaine, *Social Work*
Wells, M. Gawain, *Psychology*
Widmer, Mark A., *Health and Human Performance*

Emeriti

Allred, G. Hugh (1966) BA, MA,Brigham Young U., 1957, 1960; EdD, U. of Oregon, 1966.
Brasher, Ruth E. (1969) BS, Brigham Young U., 1951; MA, U. of Maryland, 1959; PhD, Utah State U., 1969.
Burr, Wesley R. (1969) BS, MS, Brigham Young U., 1960, 1961; PhD, U. of Minnesota, Minneapolis, 1967.
Cahoon, Owen W. (1970) BS, MS, Utah State U., 1963, 1964; DEd, Pennsylvania State U., 1970.
Cannon, Kenneth Lynn (1956) BS, Brigham Young U., 1935; MS, PhD, Iowa State U. of Science and Technology, 1948, 1954.
Childs, Margaret S. (1946) BS, Brigham Young U., 1939; MS, Oregon State U., 1949.
Devey, Ottella T. (1959) BS, MS, Brigham Young U., 1956, 1959.
Edwards, Kay P. (1974) BS, M.S, Utah State U., 1962, 1964; PhD, Cornell U., 1969.
Ellsworth, Carol (1969) BS, Colorado State U., 1951; MA, Columbia U., 1964; EdD, Brigham Young U., 1980.

Garrison, Carolyn (1970) BS, Oregon State U., 1961; MS, Iowa State U. of Science and Technology, 1971; PhD, Purdue U., 1978.
Hoopes, Margaret H. (1970) BS, Ricks Coll., 1953; MS, Brigham Young U., 1962; PhD, U. of Minnesota, Minneapolis, 1969.
Jorgensen, Eleanor (1949) BS, Brigham Young U., 1946; MS, Kansas State U., 1954; PhD, Texas Woman's U., 1965.
Knowles, Elmer M. (1962) BS, MS, Utah State U., 1949, 1950; PhD, Cornell U., 1952.
Lee, Evelyn Monson (1962) BS, MS, Montana State U., 1952, 1959.
Lewis, Stella D. (1956) BS, MHE, Brigham Young U., 1938, 1966.
Liechty, Elizabeth L. (1952) BS, Utah State U., 1948; MS, U. of California, Los Angeles, 1954.
Lind, Charlene (1964) BS, Utah State U., 1955; MA, U. of Maryland, College Park, 1961; PhD, U. of Wisconsin, Madison, 1974.
Moss, J. Joel (1961) BS, MS, Brigham Young U., 1948, 1949; PhD, U. of North Carolina, Chapel Hill, 1954.
Porter, Blaine R. (1955) BS, MA, Brigham Young U., 1947, 1949; PhD, Cornell U., 1952.
Price, Alvin H. (1966) BS, Brigham Young U., 1960; MA, PhD, U. of Minnesota, Minneapolis, 1963, 1966.
Steineckert, Della N. (1970) BS, Brigham Young U., 1954; MA, Adams State Coll. of Colorado, 1963; PhD, Florida State U., 1976.
Taylor, Barbara J. (1957) BS, MS, PhD, Brigham Young U., 1957, 1960, 1971.
Thackeray, Renee (1973) BS, Brigham Young U., 1953; MS, Oregon State U., 1960.
Vance, Barbara Jane (1967) BA, U. of Utah, 1956; MA, Brigham Young U., 1959; PhD, Stanford U., 1967.
Wright, Doris Lewis (1976) BS, Brigham Young U., 1973; MS, Utah State U., 1977.

Film

See Theatre and Media Arts section of this catalog.

Fine Arts (FnArt)

270R. European Fine Arts. (1–6:Arr.:Arr. ea.) F, W, Sp, Su
Art, design, music, and theatre of host countries and other European cultures.

Finnish

See Center for Language Studies.

Food Science and Nutrition

See Nutrition, Dietetics, and Food Science section of this catalog.

French and Italian

Cinzia Donatelli Noble, Chair
4002 JKHB, (801) 378-2542

College of Humanities Advisement Center
3078 JKHB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of French and Italian are open enrollment. However, special limitations apply for teaching majors.

The Discipline

The study of French or Italian language and literature sharpens analytical and communicative skills. Students develop proficiency in listening, reading, writing, and speaking, and they learn to use literature as a means to discover and broaden their understanding of culturally specific as well as universal issues and values.

Career Opportunities

Italian and French are valuable research and communication tools for students in music, art, history, European studies, international relations, library science, and comparative literature. Many have chosen a major or minor in Italian or French in addition to a second major or minor in an area such as accounting or business management, or as preparation for professional programs in public administration, business administration, organizational behavior, dentistry, law, or medicine.

Many of our students have opted for a career in government service, working with an embassy, the State Department, the CIA, and other government agencies.

Other students have gone into travel and tourism, working with tour agencies, airlines, major hotel chains, or resort communities.

The computer industry also provides employment opportunity for our graduates. Many computer companies have expanded into foreign markets and hire people who can translate computer and software instruction and sales publications in a foreign language.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	French
BA	French Teaching
BA	Italian
Minors	French
	French Teaching
	Italian

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	French Studies
MA	Language Acquisition (French)

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

The Department of French and Italian strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Internships Abroad. Eight-week summer work abroad is available in France, Belgium, and Switzerland, where interns receive financial compensation while performing such services as clerking in grocery and department stores, doing accounting in banks, and serving as *au pairs*. Students may enroll for cooperative education credit (399R) and conversation credit (211R, 311R, or 411). The internship proves invaluable in strengthening language skills.

Oral Proficiency Interview. All French-teaching majors and minors and all Italian majors are required to enroll in Fren 491 or Ital 491 and have an oral proficiency interview (OPI) during the senior year. The results of the OPI are recorded on the student's

transcript. The minimum rating of *Advanced* is required of all *teaching* majors and minors. Appointments for the interviews are made through the department secretary.

When it is necessary to strengthen oral proficiency, students are offered various opportunities: conversation and phonetics courses, the Foreign Language Student Residence, Study Abroad programs, summer internships abroad, and support materials in the Humanities Learning Resource Center, such as tapes, videos, and satellite broadcasts.

Instruction. All courses are taught in the target language unless indicated otherwise in this catalog.

French

General Information

Language Credit by Examination. A student enrolled full-time at BYU whose native language is English may receive credit by special examination for French for which he or she has acquired the equivalent skill or knowledge. However, this is possible only if no university credit has been given through AP, CLEP, or transfer of equivalent credit from another university or other institutions.

The French Language for Credit Examination is administered by the French and Italian Department twice a year: in November during fall semester and in March during winter semester. Based on enrollment, the credit examination may be administered during spring and/or summer terms. Details about this examination will be given by the student's Fren 201, 202, or 321 teacher. Please note that students can test out of classes as follows, depending on a student's status:

Freshmen who start with French 201 can test out of:
Fren 101, 102, and 211R (10 hours).

Freshmen or returned missionaries from Quebec or Creole-speaking missions, etc., who start with Fren 202 (this class fulfills the GE requirement for returned missionaries from the above missions) can test out of:
Fren 101, 102, 201, and 211R (14 hours)

Returned missionaries from France, Belgium, Switzerland, etc., can test out of:
Fren 101, 102, 201, 211R, and 311R (16 hours)
For returned missionaries to be eligible to take the exam, they need to be enrolled in Fren 321.

Note 1: The above five classes are *not* part of a French minor. The first French minor class requirement is Fren 321.

Note 2: Fren 340 fulfills the GE Foreign Language option for returned missionaries from France, Belgium, and Switzerland. Fren 321 does not.

Accelerated Program. Beginning: The department offers an accelerated course in beginning French (101 and 102) every fall and winter semester. These courses are offered on the block.

Foreign Language Student Residence. An excellent alternative to or preparation for foreign residency is offered through the Foreign Language Student Residence, where participants speak, eat, and live with a *French only* rule. This program, with numerous cultural opportunities, is available each semester to women and men who have completed at least one year of college French. Residents may also receive 2 hours of conversation credit per semester by enrolling in a specially designated section of 211R, 311R, or 411R.

Study Abroad Programs. All students of French are encouraged to participate in a Study Abroad program. Study Abroad typically offers during spring term a language and civilization program in Paris, France. It provides an excellent opportunity for developing language proficiency and better understanding of the history and culture of France. Study Abroad also offers a semester-long program in Paris emphasizing general education courses.

BA French (45–66 hours*)

Major Requirements

1. At least 15 major hours must be completed in residence at BYU.
2. Complete a minor (approximately 16–21 hours) or 15 hours of course work in an area approved by the major advisor. Courses must be approved before the senior year.
3. Students may double count French courses for the major or minor and another program.
4. Complete the following prerequisites (or equivalent):
   Fren 101, 102, 201, 202.
5. Complete the following core requirements:
   Fren 321, 322, 340, 341, 361, 362.
6. Complete the following:
   Fren 451.
7. Complete three courses from the following:
   Up to 6 hours from: Fren 431, 432, 433.
   Up to 9 hours from: Fren 452R, 453R, 454R, 455R, 456R, 495R.

   Note: Only one registration of Fren 495R will count toward the major requirements.

Recommended

Students who need to strengthen oral skills should enroll in Fren 211R and 311R.

*Hours include courses that may fulfill GE or university requirements.

BA French Teaching (92–98 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see below for information regarding requirements for admission to this major.

Major Requirements

1. Obtain an application packet through the College of Humanities Advisement Center or the Department of French and Italian office. Applications are accepted and reviewed three times each year (September 30, January 30, and March 30). Pending acceptance into the French teaching major program, students may be declared French majors (nonteaching) by contacting the College of Humanities Advisement Center.
2. At least 18 major hours must be completed in residence at BYU.
3. Complete an approved teaching minor (approximately 16–21 hours).
4. Students may double count French courses for the major or minor and another program.
5. Complete the following prerequisites (or equivalent):
   Fren 101, 102, 201, 202.
6. Complete the following:
   Fren 321, 322, 323, 340, 341, 361, 362, 377, 378.

7. Complete one of the following blocks:
   Either Fren 431, 432, 433
   Or Fren 451
   And two courses from Fren 452R, 453R, 454R, 455R, 456R, 495R
   Or Fren 431, 451
   And one course from Fren 432, 433, 452R, 453R, 454R, 455R, 456R, 495R.

   Note: Only one registration of 495R will count toward the major requirements.
8. Complete Fren 491 and have an oral proficiency interview (OPI) before enrolling in Fren 378. The rating will be recorded on the student's transcript. The required minimum OPI rating is *Advanced Mid* before graduation.
9. Complete the Professional Education Component (25–26 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

Note: The Department of French and Italian offers the following resources to strengthen language skills: conversation courses (Fren 211, 311, 411), the Foreign Language Student Residence, and Study Abroad in French-speaking countries. Please refer to the specific program or course description for detailed information about these resources.

*Hours include courses that may fulfill GE or university requirements.

Minor French (18–33 hours*)

Minor Requirements

1. At least 9 minor hours must be taken in residence at BYU.
2. Students may double count French courses for the major or minor and another program.
3. Complete the following prerequisites (or equivalent):
   Fren 101, 102, 201, 202.
4. Complete the following:
   Fren 321, 322, 340, 341, 361, 362.

*Hours include courses that may fulfill GE or university requirements.

Minor French Teaching (24–39 hours*)

Minor Requirements

1. At least 12 minor hours must be taken in residence at BYU.
2. Students may double count French courses for the major or minor and another program.
3. Complete the following prerequisites (or equivalent):
   Fren 101, 102, 201, 202.
4. Complete the following:
   Fren 321, 323, 340, 341, 361, 362, 377, 378.

   Note: Fren 377 must be taken before student teaching.
5. Complete Fren 491 and have an oral proficiency interview (OPI) before enrolling in Fren 378. The rating will be recorded on the student's transcript. The required minimum OPI rating is *Advanced Low* before graduation.

Note: The Department of French and Italian offers the following resources to strengthen language skills: conversation courses (Fren 211, 311, 411), the Foreign Language Student Residence, and Study Abroad in French-speaking countries. Please refer to the specific program or course description for detailed information about these resources.

*Hours include courses that may fulfill GE or university requirements.

French (Fren)

Undergraduate Courses

101. First-Year French, Part 1. (4:5:2)
Development of the four language skills: understanding, speaking, reading, and writing.

102. First-Year French, Part 2. (4:5:2) Prerequisite: Fren 101 or equivalent.
Continuation of French 101.

121. Intensive Reading in French. (1–4:Arr.:0) For students with little or no French.
Reading for research purposes, including reading skills in area of student's specialization or interest. Graduate students will be graded pass/fail. Undergraduates will receive letter grades. Conducted in English.

201. Intermediate French, Part 1. (4:5:2) Prerequisite: Fren 102 or equivalent.
Reading, writing, conversation, vocabulary building, and review of grammar.

202. Intermediate French, Part 2. (3:3:0) Honors also. Prerequisite: Fren 201 or equivalent.
Final course for GE Foreign Language requirement (except for returned missionaries); extensive reading in French literature and culture.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Fren 102 or equivalent. May be taken concurrently with Fren 201.

217. (Fren-Ital) French and Italian Cinema. (3:3:2)
Background for understanding and appreciating the best of motion picture art in France and Italy. Language of instruction is English; no knowledge of French or Italian required.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Fren 211R or instructor's consent. May be taken concurrently with Fren 340.

321. Advanced Grammar. (3:3:0) Prerequisite: Fren 202 or equivalent.
Systematic review of French grammar and syntax.

322. Advanced Composition. (3:3:0) Prerequisite: Fren 321 or concurrent enrollment.
Expository writing (narration, description, dialogue, explication de texte, etc.).

323. Language Skills for Teachers. (3:3:0) Prerequisite: Fren 321.
Teacher-specific skills in speaking, listening, reading, and writing with an eye to optimal communication with students.

340. Introduction to Literary Analysis 1. (3:3:0) Prerequisite: Fren 321 or concurrent enrollment or instructor's consent.
How to read French prose, drama, and poetry and apply methods of literary criticism. Capstone course for GE Foreign Language requirement for returned missionaries.

341. Introduction to Literary Analysis 2. (3:3:0) Prerequisite: Fren 321 or concurrent enrollment.
How to read French prose, drama, and poetry and apply methods of literary criticism. Emphasis on French writers from 1715 through the present.

345. Francophone Culture. (3:1:3) Prerequisite: Fren 102 or equivalent.
Study Abroad only.

361. French Civilization from the Beginning to 1715. (3:3:0) Prerequisite: Fren 321. Recommended: Fren 322.
Historical survey of institutions, fine arts, and social conditions to the death of Louis XIV. Prerequisite to Fren 441, 442, 495R. Fulfills GE Arts and Letters elective.

362. French Civilization from 1715 to the Present. (3:3:0) Prerequisite: Fren 321. Recommended: Fren 322.
Historical survey of institutions, fine arts, and social conditions. Prerequisite to Fren 439, 443, 444, 495R. Fulfills GE Arts and Letters elective.

377. French Language Teaching Procedures 1. (3:3:2) Prerequisite: Fren 321, 326; 420 or 421; ScEd 276R for students planning to certify.
Mastery of teaching skills specific to foreign language instruction in beginning courses. Lectures, demonstrations, microteaching. Conducted in French and English.

378. French Language Teaching Procedures 2. (3:3:2) Prerequisite: Fren 377; 491 with minimum rating of *Advanced* on the proficiency exam.
Mastery of teaching skills specific to foreign language instruction in intermediate courses. Materials development, use of instructional media, testing, microteaching. Conducted in French and English.

399R. Academic Internship: French Language Field Experience. (1–6:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience in French.

411R. Fourth-Year Conversation. (2:2:1 ea.) Prerequisite: Fren 311R or equivalent.

431. Introduction to French Linguistics. (3:3:0) Prerequisite: Fren 322, 340, 341, 361, 362.
Subfields (phonetics, morphology, syntax, lexicology, semantics) and approaches (socio-linguistics, semiology, and pragmatics).

432. History of French. (3:3:0) Prerequisite: Fren 431 or concurrent enrollment.
Introduction to the diachronic study from Latin to French.

433. French Linguistics. (3:3:0) W Prerequisite: Fren 431 or concurrent enrollment.
Advanced study of linguistic features relevant in teaching-learning environments, such as phonetics and phonology, semantization, lexical development, and contrastive syntax.

451. Literary Analysis. (3:3:0) Prerequisite: Fren 322, 340, 341, 361, 362.
French literary theory, research methods, bibliography. Threshold to upper-division literary offerings.

452R. Studies in Period, Movement, and Theme. (3:3:0 ea.) Prerequisite: Fren 451 or concurrent enrollment.
Various periods and movements (e.g., medieval, classicism, romanticism) or themes (e.g., Arthur, Faust). Topics vary.

453R. Studies in Genre. (3:3:0 ea.) Prerequisite: Fren 451 or concurrent enrollment.
In-depth study of various genres (e.g., epic, novel, lyric, film) and problems of genre in French.

454R. Studies in Author. (3:3:0 ea.) Prerequisite: Fren 451 or concurrent enrollment.
In-depth study of major French or Francophone authors (e.g., Rabelais, Moliere, Diderot, Balzac).

455R. Studies in Literary Theory. (3:3:0 ea.) Prerequisite: Fren 451 or concurrent enrollment.
In-depth study of primary texts by contemporary literary theorists (e.g., Barthes, Genette, structuralism, etc.).

456R. Francophone Studies. (3:3:0 ea.) Prerequisite: Fren 451 or concurrent enrollment.
Readings from major French-speaking writers from countries outside France, such as Canada, Africa, and the Caribbean. Fall emphasis: African and Caribbean. Winter emphasis: French Canadian.

490R. Individual Study in French. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Assignments to fit individual needs of the advanced student. Not accepted for major or minor.

491R. Senior Oral Proficiency Evaluation. (0:0:0)
Evaluation required of all French-teaching majors and minors before enrolling in Fren 378.

495R. Senior Seminar in French. (3:3:0) Prerequisite: Fren 321, 322, 340, 420, 421; or instructor's consent.
In-depth study of a limited area of literature, language, or criticism; content varies; requires research and writing.

499R. Honors Thesis. (1–6:0:0 ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Italian

General Information

Language Credit by Examination. A student enrolled full-time at BYU whose native language is English may receive credit by special examination for Italian for which he or she has acquired the equivalent skill or knowledge. However, this is possible only if no university credit has been given through AP, CLEP, or transfer of equivalent credit from another university or other institutions.

The Italian Language for Credit Examination is administered by the French and Italian Department twice a year: in November during fall semester and in March during winter semester. Based on enrollment, the credit examination may be administered during spring and/or summer terms. Details about this examination will be given by the student's Ital 321 teacher.

Returned missionaries from Italy can test out of:
Ital 101, 102, 201, 211R, and 311R (16 hours)

For returned missionaries to be eligible to take the exam, they need to be enrolled in Ital 321.

Note 1: The above five classes are *not* part of the Italian minor. The first class for the Italian minor is Ital 321.

Note 2: Ital 340 fulfills the GE Foreign Language option. Ital 321 does not.

Accelerated Program, Beginning: The department offers an accelerated course in beginning Italian (101 and 102) every fall and winter semester. These courses are offered on the block.

Foreign Language Student Residence. In addition to BYU's spring or summer term in Italy, intensive "live-in" experience is available in the Foreign Language Student Residence. Besides taking regular courses in the department, students participate in lectures, discussions, films, and related extracurricular activities under the supervision of native Italian head residents. Vital to the success of the program is the 24-hour *Italian only* rule whereby students use Italian language as their only means of communication while they are at home. Participants may receive 2 credit hours per semester by enrolling in Ital 211R, 311R, or 411R.

Study Abroad Program. All students of Italian are encouraged to participate in a Study Abroad program in Italy offered spring or summer term (usually every other year). This program provides excellent opportunities for developing language proficiency and understanding the rich culture of Italy.

BA Italian (60–66 hours*)

Major Requirements

1. At least 15 major hours must be completed in residence at BYU.
2. Complete a minor (approximately 16–21 hours) or 15 hours of course work in an area approved by the major advisor. Courses must be approved before the senior year.
3. Students may double count Italian courses for the major or minor and another program.
4. Complete the following prerequisites (or equivalent):
   Ital 101, 102, 201, 202.
5. Complete the following core requirements:
   Ital 321, 322, 326, 340.
6. Complete six courses from the following:
   Ital 420, 421, 441, 442, 443, 444, 460, 495R.
7. Complete Ital 491 and have an oral proficiency interview (OPI) during the senior year. The rating will be recorded on the student's transcript. The desired minimum OPI rating is *Advanced*.

*Hours include courses that may fulfill GE or university requirements.

Minor Italian (18–33 hours*)

Minor Requirements

1. At least 9 minor hours must be completed in residence at BYU.
2. Students may double count Italian courses for the major or minor and another program.
3. Complete the following prerequisites (or equivalent):
   Ital 101, 102, 201, 202.
4. Complete the following:
   Ital 321, 322, 326, 340.
5. Complete two courses from the following:
   Ital 420, 421, 441, 442, 443, 444, 460, 495R.

*Hours include courses that may fulfill GE or university requirements.

Italian (Ital)

Undergraduate Courses

101. First-Year Italian, Part 1. (4:5:2)
Daily development of the four language skills: understanding, speaking, reading, and writing.

102. First-Year Italian, Part 2. (4:5:2) Prerequisite: Ital 101 or equivalent.
Continuation of Ital 101.

201. Intermediate Italian 1. (4:5:1) Prerequisite: Ital 102 or two years of high school Italian or equivalent.
Reading, writing, conversation, vocabulary building, and review of grammar.

202. Intermediate Italian 2. (3:3:0)
Final course for GE Foreign Language requirement (except for returned missionaries); extensive reading in Italian literature and culture.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Ital 102 or equivalent. May be taken concurrently with Ital 201.

217. (Fren-Ital) French and Italian Cinema. (3:3:2)
Background for understanding and appreciating the best of motion picture art in France and Italy. Language of instruction is English; no knowledge of French or Italian required.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Ital 211R or instructor's consent. May be taken concurrently with Ital 321 or 340.

321. Advanced Grammar. (3:3:0) Prerequisite: Ital 202 or equivalent.
Intensive review of grammar; vocabulary building.

322. Advanced Composition. (3:3:0) Prerequisite: Ital 321 or concurrent enrollment.
Italian syntax and composition.

326. Italian Phonetics and Pronunciation. (3:3:0) Prerequisite: Ital 321 or instructor's consent.
General rules of pronunciation. Introduction to history of Italian language.

340. Introduction to Italian Literature. (3:3:0) Prerequisite: Ital 321 or instructor's consent.
Basic literary concepts and terms coupled with readings of Italian works from various genres and periods. Capstone course for GE Foreign Language requirement for returned missionaries.

399R. Academic Internship: Italian Language Field Experience. (1–6:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience in Italian.

411R. Fourth-Year Conversation. (2:2:0 ea.) Prerequisite: concurrent residency in the Foreign Language Student Residence.

420. Italian Civilization from the Beginning to 1600. (3:3:0) Prerequisite: Ital 340.
Survey of institutions, fine arts, and great writers that shaped the history of Italy from the barbarian invasions through the Renaissance. Fulfills GE Arts and Letters elective.

421. Italian Civilization from 1600 to the Modern Era. (3:3:0) Prerequisite: Ital 340.
Survey of institutions, fine arts, and great writers that shaped the history of Italy from the Baroque period to the modern era. Fulfills GE Arts and Letters elective.

441. Italian Literature of the Late Middle Ages and Renaissance. (3:3:0) Prerequisite: Ital 340.

442. Italian Literature of the Baroque and Enlightenment Periods. (3:3:0) Prerequisite: Ital 340.

443. Italian Literature of the Romantic Period. (3:3:0) Prerequisite: Ital 340.

444. Italian Literature of the Twentieth Century. (3:3:0) Prerequisite: Ital 340.

460. Dante's *Divine Comedy*. (3:3:0)
Intensive examination of Dante's major opus. Lectures in English with bilingual text. Italian majors and minors must read the work in the original for credit.

490R. Individual Study in Italian. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Assignments to fit individual needs of the advanced student. Not accepted for major or minor.

491. Senior Oral Proficiency Evaluation. (0:0:0)
Required of all majors during the senior year.

495R. Senior Seminar in Italian. (3:3:0) Prerequisite: Ital 340 or instructor's consent.
In-depth study of a limited area of literature, language, or criticism; content varies; requires research and writing.

499R. Honors Thesis. (1–6:0:0 ea.)

Romanian (Rom)

Undergraduate Courses

101. First-Year Romanian, Part 1. (4:5:2)
Basic language skills.

102. First-Year Romanian, Part 2. (4:5:2)
Basic language skills.

201. Second-Year Romanian. (4:5:2) Prerequisite: Rom 102 or equivalent experience.
Conversation vocabulary building; reading and writing skills, emphasizing writing.

211R. Second-Year Romanian Conversation. (2:2:0) Prerequisite: Rom 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Romanian Conversation. (2:2:0) Prerequisite: Rom 211R or equivalent experience.
Advanced conversational skills.

340. Introduction to Romanian Literature and Culture. (3:3:0) For returned missionaries or others with extensive Romanian language experience. On dem. Prerequisite: foreign residence experience in Romania.
Required course for obtaining language credit by examination. Culminating course for GE Foreign Language requirement.

French and Italian Faculty

Professors
Decoo, Wilfried (2000) BA, U. of St. Ignatius, Belgium, 1967; MA, Ghent State U., Belgium, 1969; PhD, Brigham Young U., 1974.
Lambert, L. Gary (1969) BA, U. of California, Berkeley, 1963; MA, U. of California, Santa Barbara, 1965; PhD, Rice U., 1969.
Sowell, Madison U. (1979) BA, Brigham Young U., 1975; MA, PhD, Harvard U., 1976, 1979.

Teaching Professors
Noble, Cinzia D. (1980) BA, Brigham Young U., 1978; Dott. in Lett., G. D'Annunzio, Italy, 1979.
Thompson, Chantal P. (1973) BA, U. of Rennes, France, 1968; BA, MA, Brigham Young U., 1970, 1972.

Associate Professors
Bush, Michael D. (1992) BA, Brigham Young U., 1972; MBA, U. of Missouri, 1976; PhD, Ohio State U., 1983.
Hurlbut, Jesse D. (1994) BA, Brigham Young U., 1980; MA, U. of California, Santa Barbara, 1982; PhD, Indiana U., 1990.
Klein, Ilona (1994) Dott. in Lett., U. of Rome, Italy, 1981; MA, PhD, U. of Wisconsin, Madison, 1982, 1986.
Le Bras, Yvon R. (1993) BA, MA, U. of Rennes, France, 1970, 1972; MA, Brigham Young U., 1972; PhD, Laval U., Canada, 1992.
Sprenger, Scott M. (1993) BA, MA, U. of Washington, 1983, 1986; MA, Johns Hopkins U., 1990; PhD, Emory U., 1995.
Unlandt, Nicolaas G. W. (1990) BA, MA, DLitt, U. of Amsterdam, Holland, 1983, 1985, 1992.

Assistant Professors
Cropper, Corry L. (1998) BA, Brigham Young U., 1993; MA, PhD, U. of Illinois, Urbana, 1995, 1998.
Lee, Daryl P. (1997) BA, Brigham Young U., 1992; MA, MPhil, PhD, Yale U., 1993, 1995, 1999.
Olivier, Marc L. (1998) BA, Brigham Young U., 1991; MA, PhD, U. of Washington, 1993, 1999.

Associate Lecturer
Sprenger, Anca (2001) BA, Universitatea Bucuresti, 1984; DEA, Université de Paris III, 1991; PhD, U. of Southern California, 1997.

Emeriti
Ashford, Josette B. (1969) BA, PhD, Brigham Young U., 1967, 1972.
Brown, Thomas H. (1960) BA, Brigham Young U., 1955; MA, PhD, U. of Illinois, 1957, 1960.
Clark, Hoover W. (1964) BA, MA, Brigham Young U., 1954, 1958; PhD, Syracuse U., 1964.
Jensen, Don C. (1963) BA, MA, Brigham Young U., 1960, 1963; PhD, U. of Minnesota, Minneapolis, 1972.
Kimball, M. Douglas (1967) BA, MA, U. of Utah, 1953, 1964; PhD, Brigham Young U., 1970.
Slade, J. Keith (1963) BA, U. of Arizona, 1959; MA, Brigham Young U., 1960.
Turner, Norman C. (1970) BA, MA, Brigham Young U., 1957, 1958; PhD, Syracuse U., 1962.

Genealogy

See History and Church History and Doctrine sections of this catalog.

General Education (GE)

105. Quantitative Reasoning. (3:3:0) W
Developing basic quantitative reasoning capability. Importance of mathematics and statistics in daily life. Developing quantitative skills needed for effective living.

Geography

J. Matthew Shumway, Chair
690-B SWKT, (801) 422-2707

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of Geography are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Geography offers a variety of programs centered around spatial analysis and tailored, so far as possible, to meet the future needs of individual students. Our modern computer laboratory allows students to gain practical experience with geographical information systems (GIS), remote sensing, cartography, and other programs in planning, urban, travel, and population studies.

Career Opportunities

Graduates are employed in a wide range of both private and governmental positions. Job titles include geographer; teacher of geography; city or regional planner; cartographer; photo interpreter; commodities and industrial location analyst; intelligence, travel industry, or environmental and GIS specialist; and many others.

Skills in spatial analysis make geography a valuable minor or supporting field for many other disciplines.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Geographic Information Systems
BS Geography
  Emphases (optional):
    Global Studies
    Physical Environment Studies
    Travel and Tourism Studies
BS Geography Teaching
BS Urban, Rural, and Environmental Planning
Minors Geographic Information Systems
  Geography
  Geography Teaching
  Travel and Tourism Studies

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Geography

For more information, see the BYU 2003–2004 Graduate Catalog.

General Information

1. The Department of Geography has three majors, each with four main components: core or foundation courses, skill courses, specialization courses, and a capstone experience. Core courses emphasize core geographic concepts and ways of creating knowledge that are common to all of the majors, courses designed to help build frameworks for understanding the world. Students are required to take two courses from each of the four core areas of geographic knowledge (physical, regional, human, and mapping). Required core courses:
   Geog 100, 101, 120, 130, 211; 222 or 223.
   Stat 221.
2. Prerequisite: all students admitted to one of the geography majors listed above must complete the following courses within one year of declaring a major:
   Geog 100, 101, 120, 130, 211.
3. Capstone experience: The capstone experience integrates material learned in each emphasis. Students will participate in 400/500-level courses or seminars that emphasize individual (or collaborative) research and creative thinking. These studies emphasize active learning, reflective analysis by the student on the continuity and complementary nature of geographic knowledge beyond the classroom, and the development of the student's identity as a geographer. Senior seminars, internships, service learning courses, and mentored-learning environments may be included.

BS Geographic Information Systems (60 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212.
   Stat 221.
2. Complete one course from the following:
   Geog 222, 223.
3. Complete one physical geography course from the following:
   Geog 303, 304, 305.
4. Complete one regional course from the following:
   Geog 250, 255, 260, 265, 271, 272, 273.
5. Complete one human geography course from the following:
   Geog 331, 336, 341, 346, 347, 385.
6. Complete the following major courses:
   Geog 213, 217, 219, 311, 312, 313, 317.
7. Complete two courses from the following:
   Geog 411, 412, 413, 414, 417.
8. With the approval of an advisor, complete a capstone course from the following:
   Geog 399R, 415, 416, 493R, 501R, 510, 521R.

*Hours include courses that may fulfill GE or university requirements.

BS Geography: Global Studies Emphasis (46 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212.
   Stat 221.
2. Complete one course from the following:
   Geog 222, 223.
3. Complete one physical geography course from the following:
   Geog 303, 304, 305.
4. Complete three regional courses from the following:
   Geog 250, 255, 260, 265, 271, 272, 273.
5. Complete three human geography courses from the following:
   Geog 331, 336, 341, 346, 348, 385.
6. With the approval of an advisor, complete a capstone course from the following:
   Geog 399R, 415, 416, 493R, 501R, 510, 521R.

*Hours include courses that may fulfill GE or university requirements.

BS Geography: Physical Environment Studies Emphasis (55 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212.
2. Complete one course from the following:
   Geog 222, 223.
3. Complete one regional course from the following:
   Geog 250, 255, 260, 265, 271, 272, 273.
4. Complete one human geography course from the following:
   Geog 331, 336, 341, 346, 385.

5. Complete the following major courses:
   Biol 150.
   Geog 303, 304, 307, 313.
6. Complete one course from the following:
   Geog 305.
   Geol 411.
7. Complete two courses from the following:
   Biol 350.
   Geog 306, 310, 311, 312, 414, 423.
8. With the approval of an advisor, complete a capstone course from the following:
   Geog 399R, 415, 416, 493R, 501R, 510, 521R.

*Hours include courses that may fulfill GE or university requirements.

BS Geography: Travel and Tourism Studies Emphasis (55 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212.
   Stat 221.
2. Complete one course from the following:
   Geog 222, 223.
3. Complete one physical geography course from the following:
   Geog 303, 304, 305, 307.
4. Complete one regional course from the following:
   Geog 250, 255, 260, 265, 271, 272, 273.
5. Complete one human geography course from the following:
   Geog 336, 341, 346.
6. Complete the following major courses:
   BusM 340.
   Geog 331, 347, 348.
   RMYL 304.
7. Complete two courses from the following:
   Geog 306, 310, 351, 352, 385.
   RMYL 320 (or 371).
8. With the approval of an advisor, complete a capstone course from the following:
   Geog 399R, 415, 416, 493R, 501R, 510, 521R.

*Hours include courses that may fulfill GE or university requirements.

BS Geography Teaching (87–94 hours*, including licensure hours)

Major Requirements

1. A teaching minor is required for licensure (approximately 16–21 hours).
2. Prerequisites: Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212, 250, 331.
   Stat 221.
3. Complete one course from the following:
   Geog 222, 223.
4. Complete two regional courses from the following:
   Geog 255, 260, 265, 271, 272.
5. Complete three systematic courses from the following:
   Geog 303, 304, 305, 310, 312, 313, 336, 341, 346, 347, 348, 385, 501R.
6. Complete the Professional Education Component (28–29 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

BS Urban, Rural, and Environmental Planning (54–59 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212.
   Stat 221.
2. Complete one course from the following:
   Geog 222, 223.
3. Complete one physical geography course from the following:
   Geog 303, 304, 305.
4. Complete one regional course from the following:
   Geog 250, 255, 260, 265, 271, 272, 273.
5. Complete the following major courses:
   Geog 306, 310, 336, 346, 410.
6. In consultation with an advisor, complete a minimum of four courses from the following:
   Geog 213, 219, 307, 311, 312, 313, 385, 414, 421, 422, 423.

   Note: Some courses may require prerequisites.
7. With the approval of an advisor, complete a capstone course from the following:
   Geog 399R, 415, 416, 493R, 501R, 510, 521R.

*Hours include courses that may fulfill GE or university requirements.

Minor Geographic Information Systems (20–23 hours)

Minor Requirements

1. Complete the following:
   Geog 211, 212, 312, 412.
2. Complete three courses from the following:
   Geog 213, 217, 219, 313, 411, 413, 417.

Minor Geography (18 hours)

Minor Requirements

1. Complete the following :
   Geog 101, 120, 130, 211, 212.
2. Complete 3 hours of electives. Electives cannot include Geog 222 or 223; 351, 399R, 493R, or any Geog 500 or above courses.

Minor Geography Teaching (18 hours)

Minor Requirements

1. Complete the following:
   Geog 101, 120, 130, 211, 250.
2. Complete 3 hours of electives. Electives cannot include Geog 222 or 223; 351, 399R, 493R, or any Geog 500 or above courses.

Minor Travel and Tourism Studies (19 hours)

Minor Requirements

1. Complete the following:
   Geog 120, 347, 348, 351, 352.
2. Complete one regional course from the following:
   Geog 250, 255, 260, 265, 271, 272.

Geography (Geog)

Undergraduate Courses

100. The Geographic Approach. (1:1:0) Prerequisite: major status.
Overview of the discipline of geography and the faculty and geography major at BYU.

101. Global Environment: Understanding Physical Geography. (3:3:0) F, W, Sp, Su Independent Study also.
Physical environment, distribution and interrelationships of climates, landforms, ecosystems and their human significance.

120. Geography and World Affairs. (3:3:0) F, W, Sp, Su Independent Study also. Honors also.
Survey of the world, stressing geography of major political regions.

130. Introduction to Human Geography. (3:3:0) F, W, Alt. term
Culture distributions and their relationship to existing geographic phenomena.

211. Map Use and Interpretation. (3:2:2) F, W, Sp or Su
Maps as tools for spatial analysis of problems in physical and cultural geography.

212. Introduction to Geographic Information Systems. (3:2:1) F, W, Sp or Su
Concepts in the use of small- and large-scale digital map data, emphasizing landscape interpretation and feature description.

213. Earth Observation and Image Interpretation. (3:2:2) F, W
Principles of earth observation: primarily air photo/large-scale satellite imagery interpretation, basic field methods, photogrammetry.

215. Database Management. (3:3:0) Prerequisite: CS-CpIn 100.
Using databases to model, store, and analyze complex information, especially in social science applications. Conceptual modeling, relational database design, relational algebra, SQL, and distributed (client/server and Internet) systems.

216. Internet Communication and Computer Networking. (3:3:0) Prerequisite: CS-CpIn 100.
Computer hardware and operating systems. Functionality of hardware and software components, with best practices in maintenance, safety, and security. Effective network design and deployment for basic SOHO network environments. Basics of TCP/IP networks. Internet-based communication skills.

217. Programming for Geographers 1. (3:3:0) F Prerequisite: CS 142 or equivalent.
Analysis of geographic information for decision making with emphasis on developing GIS applications using Visual Basic, Avenue, and AML.

219. Global Positioning Systems and Geodesy. (2:2:0) F Prerequisite: Geog 211 or instructor's consent.
Earth coordinate systems, map projections, and global positioning system methods.

222. Quantitative Research and Reasoning. (3:3:0) F, W Prerequisite: Stat 221.
Organizing, acquiring, and using quantitative geographic data for research purposes within the context of the scientific method; learning and applying research techniques and statistical methods in individual geographic projects.

223. Qualitative Research Methods. (3:3:0) F, W
Qualitative inquiry; how to collect, analyze, and use qualitative data.

230. Geography for Education Majors. (3:3:0) Sp
Essential geographic principles and concepts for prospective teachers.

250. United States and Canada. (3:3:0) F, W Independent Study also.
Analysis of the natural environment, historical development, cultural patterns, economic systems, and political structures of geographic regions.

255. Middle and South America. (3:3:0) W
Environmental, cultural, economic, and political parameters of Latin American societies.

260. Europe. (3:3:0) F
Systematic approach to physical base, social and political problems, economic issues, and regional summary.

265. Russia and the Former Soviet Union. (3:3:0) W
Physical features, resources, political issues, economy and industries, population concerns, and role in world affairs.

271. Middle East. (3:3:0) F even yr.
Physical and cultural geography of Southwest Asia and North Africa, emphasizing the cultural mosaic, geopolitics, environment, and resources of the region.

272. East Asia. (3:3:0) W odd yr.
Region of monsoon Asia and its basic human (demographics, nations and ethnic groups, settlement patterns, religious beliefs, transportation and communication systems, political structures) and physical geographic characteristics (land forms, physiography, climatic characteristics, and natural resources).

273. Southeast Asia. (3:3:0) W alt yr.
Fundamental issues of geography relating to Southeast Asia, including the extraction and marketing of natural resources, economic development, neighborly relations, and how diffusion has influenced the unique cultural, religious, and linguistic characteristics of the region.

303. Biogeography. (3:3:0) Prerequisite: Geog 101 or instructor's consent.
Broad-scale distribution of plants and animals. Theoretical and practical applications to conservation and effects of global environmental change.

304. Geography of Climates. (3:3:0) W Prerequisite: Geog 101 or instructor's consent.
Elements, controls, distribution, and classification of the earth's climates.

305. Geography of Landforms. (3:3:0) Prerequisite: Geog 101 or instructor's consent.
Elements of landforms: distributions and cultural significance.

306. Public Land Conservation. (3:3:0) F Prerequisite: Geog 101 or instructor's consent.
Environmental and social geography of public lands; analyzing historical, planning, management, and ecological issues.

307. Landscape Ecology. (3:3:0) Prerequisite: Geog 101 or instructor's consent.
Interaction between spatial patterns and spatial processes in an ecological context. Methods, theories, and practical applications of landscapes at various scales.

310. Principles of Land Use Planning. (3:3:0) F
Land use concepts, practical and theoretical problems, activities, and techniques.

311. Geographic Data Management. (3:3:0) F Prerequisite: Geog 217 or equivalent.
Nature of geographic information and its practical management in GIS; design of GIS databases, data collection from primary and secondary sources, manipulating data in preparation for analysis, and data exploration.

312. Cartographic Design. (4:2:4) F Prerequisite: Geog 211.
Graphic perception, layout, typography, color, statistical methods, and symbolization of thematic maps through computer-aided techniques.

313. Remote Sensing I. (3:3:0) Prerequisite: Geog 211, 212.
Introduction to airborne and spaceborne sensors, including characteristics and image acquisition. Emphasizes land cover mapping applications appropriate for environmental monitoring.

317. Programming for Geographers 2. (3:3:0) W Prerequisite: Geog 217.
Fundamentals of computer programming within a geographic context; developing object-oriented approaches to building larger programs. Non-quantitative examination of popular data structures and algorithms. Survey of programming applications (e.g., Internet, stand-alone).

331. Economic Geography. (3:3:0) F, Alt. term
Introduction to economic processes and spatial patterns, emphasizing theoretical approaches, locational strategies, and changing economic land-use patterns.

336. Geography of Urban Environment. (3:3:0) F
Urban patterns, city structures, and spatial analysis of cities as they affect their residents.

341. Political Geography. (3:3:0) F, W
Spatial analysis of global politics; focus on geopolitics, territory and conflict, nationalism, and the politics of resources.

346. Population and Natural Resources. (3:3:0) W odd yr.
Spatial perspective on wide field of population studies, focusing on distribution, development, structure, and movement of populations; introduction to basic demographic measures.

347. Tourism: A Conceptual Framework. (3:3:0) F, Sp Independent Study also.
Introduction to tourism as a field of study; four elements of tourism: dynamic, service, functional, and consequential.

348. Tourism: Patterns and Analysis. (3:3:0) Independent Study also.
Patterns in domestic and international tourism; interrelationship between geography and tourism in understanding the patterns and their impact.

351. Travel Planning, Rates, and Tariffs. (3:3:0) F, W, Sp
Procedures of domestic and international trip planning, including ticketing, routing, fare structure, rates, and tariffs.

352. Tour Operation. (3:3:0) F, W Independent Study also.
Broad overview of tour operations; travel counseling.

385. Environment and Development in Africa. (3:3:0) F
Geographical analysis focusing on environmental planning and development. Political ecology approach involving issues of access to resources, conservation, designations, environmental degradation, poverty, and social protest; case studies from selected countries.

399R. Academic Internship. (1–6:Arr.:Arr. ea.) F, W, Sp, Su
On-the-job experience. No more than 3 hours total in cooperative education may be counted in major.

410. Practices of Land Use Planning. (3:3:0) W Prerequisite: Geog 310.
Applications of methods and techniques commonly used in the land use planning process, emphasizing data collection and analysis, fieldwork, and writing skills.

411. Issues in Computer Cartography. (3:3:0) W Prerequisite: Geog 312 or equivalent.
Current techniques for compilation, integration, and display of digital map data.

412. Problem Solving with Geographic Information Systems. (4:3:1) F Prerequisite: Geog 212 or instructor's consent.
Theory and practice of vector GIS data acquisition, editing, and analysis.

413. Remote Sensing 2. (3:3:0) Prerequisite: Geog 313.
Computer processing of low-altitude and satellite images for geographic analysis of physical and cultural phenomena on earth.

414. Applied Urban Environmental Modeling. (3:3:0) W Prerequisite: Geog 212, 213, 313.
Complexities of urban environment through use of geographic techniques, including remote sensing, GIS, GPS, aerial photo and map interpretation, and fieldwork. Modeling human impact on the physical environment by examining local case studies and completing group projects. Developing and building technical skills as tools in understanding the urban environment.

415. Geographic Field Methods. (3:3:0) Sp
Learning different methods used by geographers in the field through hands-on involvement in real faculty research.

416. Global Field Methods. (3:3:0) Su Prerequisite: Geog 223 or equivalent.
For students involved in department's summer field program in Tanzania working in collaboration with Kilimanjaro National Park staff in their community conservation program.

417. Analytical Cartography. (3:3:0) F Prerequisite: two courses in computer programming including CS 142 or other introductory course in C or C++; introductory course in trigonometry.
Geocoding, spatial data representation, and map-based transformations.

421. Comprehensive Planning. (2:2:0) W Prerequisite: Geog 310, 410.
Assessing problem and issue identification, goal formulation, data gathering, synthesis and summary, plan concept and format, and public policy adoption while writing a general plan for a rural community in Utah.

422. Principles of Urban Design. (2:2:0) F Prerequisite: Geog 310, 410.
Theories and principles of urban design emphasizing specific design criteria. Planning and design tools used within the U.S. by local government. Basic principles of architecture and landscape architecture. Field trips.

423. Planning for Unique and Sensitive Lands. (2:2:0) W Prerequisite: Geog 310, 410.
Unique aspects of land affecting land-use planning positively or negatively depending on sensitivity of design. Landscape ecological principles introduced and examined for usefulness in land-use planning.

493R. Special Problems. (1–3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: geography major or departmental approval.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Seminar in Geography. (1–3:Arr.:0 ea.)
Detailed investigation of selected systematic and regional geographic topics.

503. Geographic Information Systems. (4:3:1) For nonmajors who have not taken Geog 211 or 212 or equivalent. Prerequisite: graduate standing.
Using geographic information for solving advanced spatial problems. Introduction to using and producing maps and computer-based geographic information systems (GIS) as geographic tools. Hands-on research applications in the students' disciplines.

510. Advanced Urban Dynamics and Planning. (3:3:0) W even yr. Prerequisite: Geog 310, 410, or equivalent.
Urban geography and land use planning, emphasizing urban morphology, land use patterns, and spatial analysis; critical evaluation of models and theories.

521R. Geographic Information Practicum. (3:3:0) F, W, Sp
Prerequisite: GIS major status; Geog 311, 312, 313, 317; Geog 222 or 223; one 400-level GIS course.

Integration of various geographic technologies to solve a practical problem. Advanced topics in GIS, remote sensing, cartography, and programming as needed.

599R. Academic Internship. (1–3:Arr.:Arr. ea.)

On-the-job experience. No more than 3 hours in cooperative education may count toward major requirements.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Geography Faculty

Professor

Jackson, Richard H (1969) BS, MS, Brigham Young U., 1965, 1966; PhD, Clark U., 1970.

Associate Professors

Davis, James A. (1990) BS, Brigham Young U., 1978; MA, California State U., Fullerton, 1987; PhD, Arizona State U., 1993.
Emmett, Chad F. (1992) BA, Utah State U., 1979, MA, Brigham Young U., 1983; PhD, U. of Chicago, 1991.
Hardin, Perry J. (1988) BS, MA, Brigham Young U., 1982, 1984; PhD, U. of Utah, 1989.
Shumway, J. Matthew (1991) BS, MA, Brigham Young U., 1984, 1987; PhD, Indiana U., Bloomington, 1991.

Assistant Professors

Bekker, Matthew F. (2001) BA, Brigham Young U., 1994; MA, Penn State U., 1996; PhD, U. of Iowa, 2002.
Durrant, Jeffrey O. (1999) BS, MS, Brigham Young U., 1995, 1996; PhD, U. of Hawaii, 2001.
Gluch, Renee (2001) BS, MA, U. of Utah, 1990, 1998.
Jackson, Mark W. (2000) BS, MS, Brigham Young U., 1996, 1997; PhD, U. of South Carolina, 2001.
Otterstrom, Samuel M. (1997) BS, MS, Brigham Young U., 1990, 1994; PhD, Louisiana State U., 1997.
Plewe, Brandon S. (1997) BS, Brigham Young U., 1992; MS, PhD, State U. of New York at Buffalo, 1995, 1997.

Emeriti

Grey, Alan H. (1964) BA, Brigham Young U., 1959; MA, PhD, U. of Wisconsin, Madison, 1960, 1963.
Hinckley, Thomas K. (1972) BA, Brigham Young U., 1958; MA, U. of Pittsburgh, 1960; PhD, U. of Western Ontario, Canada, 1979.
Horiuchi, Russell N. (1961) BA, Brigham Young U., 1953; MA, U. of California, Berkeley, 1958; PhD, U. of Washington, 1975.
Hudman, Lloyd E. (1970) BS, U. of Utah, 1964; MS, PhD, U. of Kansas, 1968, 1970.
Layton, Robert L. (1954) BS, MS, U. of Utah, 1951, 1952; PhD, Syracuse U., 1962.

Geology

Jeffrey D. Keith, Chair
S-389 ESC, (801) 422-3918

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

All degree programs in the Department of Geology are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Geology is the study of the earth's origin and development and of the natural processes that have operated upon it and within it from the time the solar system was created. With the development of remote sensing technology and the exploration of the solar system by manned and unmanned spacecraft, geology has expanded to include the moon, other planets and their moons, and small bodies that orbit the sun. A student of geology will study the major features of the earth: the continents, the ocean basins, the structure of mountains, the origin of minerals, the nature of fossils, volcanic eruptions, earthquakes, and glaciers.

Career Opportunities

Graduates have the opportunity to work both in the outdoors and in the laboratory, pursuing careers in energy, mineral, and water resources or in environmental evaluation with industry, government, or consulting firms. The substantial preparation in basic sciences and mathematics also leads to a broad spectrum of teaching opportunities.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Earth and Space Science Education
BS	Engineering Geology
BS	Geology
	Emphasis (optional):
	Environmental Geology
Minors	Geology
	Geology Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Geology

For more information see the BYU 2003–2004 Graduate Catalog.

BA Earth and Space Science Education (81–86 hours*, including licensure hours)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Geol 111, 112, 210, 411.
3. Complete 2 hours of the following:
   Geol 491R (four enrollments).
4. Complete three courses from the following:
   Geol 109, 230, 286, 351, 352, 370, 375, 404, 435, 440, 445, 451, 460, 480.
5. Complete one of the following options:
   Either Chem 105, 106, 107
   Or Chem 111, 112.
6. Complete the following:
   Engl 316.
   Math 119.
   Phil 423.
7. Complete one of the following options:
   Either Phscs 121, 127, 137, 220
   Or Phscs 105, 106, 107, 108, 127, 137.
8. Complete the Professional Education Component (28–29 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

BS Engineering Geology (86–89 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Geol 112, 210, 230, 351, 352, 370, 375, 410.
3. Complete 2 hours of the following:
   Geol 491R (four enrollments).
4. Complete three courses from the following:
   Geol 404, 411, 435, 440, 445, 451, 460, 559, 560, 575.
5. Complete the following:
   CEEn 103, 113, 203, 332, 341, 431.
6. Complete one course from the following:
   Geol 111, 330.
7. Complete the following:
   Engl 316.
   Math 112, 113, 212.
   Phscs 121, 220.
8. Complete one of the following options:
   Either Chem 105, 106, 107
   Or Chem 111, 112.

Recommended Course

Stat 221.

*Hours include courses that may fulfill GE or university requirements.

BS Geology (67–69 hours*)

This basic degree in geology prepares graduates for professional employment in industry or government or for advanced studies in geology, business, or law.

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Geol 111, 112, 210, 230, 351, 352, 370, 375, 410.
3. Complete 2 hours of the following:
   Geol 491R (four enrollments).
4. Complete three courses from the following:
   Geol 404, 411, 435, 440, 445, 451, 460, 480.
5. Complete one of the following options:
   Either Chem 105, 106, 107
   Or Chem 111, 112.
6. Complete the following:
   Engl 316.
   Math 112, 113.
   Phscs 121, 220.

Recommended Courses

Stat 221.

*Hours include courses that may fulfill GE or university requirements.

BS Geology: Environmental Geology Emphasis

(70–73 hours*)

Increasing concern with environmental degradation and natural geologic hazards has led to a demand for geologists who are both well grounded in the fundamentals of the science of geology and specifically prepared to address environmental problems: This degree prepares students for careers either in the environmental services industry or government or for advanced studies.

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Geol 111, 112, 210, 230, 351, 352, 370, 375, 404, 410, 435.
3. Complete 2 hours of the following:
   Geol 491R (four enrollments).
4. Complete two courses from the following:
   CEEn 351.
   Geog 310.
   Geol 411, 440, 535.
   PAS 303.
5. Complete the following:
   Engl 316.
   Math 112, 113.
   Phscs 121, 220.
6. Complete one of the following options:
   Either Chem 105, 106, 107
   Or Chem 111, 112.

Recommended Course

RelC 491.

*Hours include courses that may fulfill GE or university requirements.

Minor Geology (16 hours)

Minor Requirements

1. When all of the geology credit required for a minor is transferred from another school, at least one course in geology must be taken at BYU.
2. No D credit is allowed in minor courses.
3. Complete the following:
   Geol 111, 112.
4. Complete 8 hours from the following:
   Geol 109, 210, 286, 351, 352, 355, 370, 375, 404, 411, 435, 440, 445, 451, 460, 480.

Minor Geology Teaching (16 hours)

Minor Requirements

1. When all of the geology credit required for a minor is transferred from another school, at least one course in geology must be taken at BYU.
2. No D credit is allowed in minor courses.
3. Complete the following:
   Geol 111, 112.
4. Complete 8 hours from the following:
   Geol 109, 210, 286, 351, 352, 355, 370, 375, 404, 411, 435, 440, 445, 460, 480.

Geology (Geol)

Undergraduate Courses

101. Introduction to Geology. (3:2:1) F, W, Sp, Su Honors also.
Cultural focus on physical and environmental geology for nonscience majors; rocks and minerals. Field trips.

103. Life of the Past. (3:2:1) F, W
Cultural focus on historical geology for nonscience majors; fossils. Field trips.

109. Geology of the Planets. (3:3:0) For nonscience and science majors. W
Origins and distinctive histories of the planets in our solar system as revealed by study of their surface features.

111. Physical Geology. (4:3:2) F, W Prerequisite: Math 112 or concurrent enrollment.
Materials, structure, and surface features of the earth and the geologic processes involved in their development. Field trips and lab studies, use of aerial photos.

112. Historical Geology. (4:3:2) W Prerequisite: Geol 111.
Developmental history of the earth, its landforms, and life forms, emphasizing the North American continent. Field trips and lab studies.

210. Field Studies. (3:0:9) F Prerequisite: Geol 111, 112.
Procedures in observing, collecting, and recording field data concerning properties of rock units. Contact Geology Department before April 15 for dates of upcoming August trip.

230. Computer Applications in Geology. (3:4:0) W Prerequisite: Geol 111, 210.
Hardware, operating systems, and selected software necessary for conducting and presenting geological, geophysical, and geochemical studies.

286. Prehistoric Vertebrates. (3:3:0) W alt. yr.
Major groups of prehistoric vertebrates, emphasizing reptiles (especially dinosaurs) and mammals. Scientific and cultural values considered.

330. Geology for Engineers. (3:2:2) F, W
Geological processes and materials bearing on engineering practices. Field trips.

351. Mineralogy. (4:3:4) F Prerequisite: Chem 105 or 111 or concurrent enrollment.
Principles of crystallography and crystal chemistry. Physical, chemical, and crystallographic properties of minerals.

352. Petrology. (3:3:2) W Prerequisite: Geol 210, 351, Chem 105 or 111.
Compositions, fabrics, and field relations of igneous and metamorphic rocks; behavior of rock-forming systems. Field trips.

355. Gemology. (3:2:2) F Prerequisite: PhyS 100.
Those minerals used as gems: crystallography, crystal chemistry, physical and optical properties, geologic occurrence, mining methods; evaluation, traditions, and history. Lab: identification and testing.

370. Stratigraphy and Sedimentation. (3:3:3) W Prerequisite: Geol 111, 112.
Erosion; sediment entrainment, transport, and deposition; depositional systems and facies analysis; principles of stratigraphy. Field trips.

375. Structural Geology. (3:3:2) F Prerequisite: Geol 111, 112, 351, 352; Phscs 121 or concurrent enrollment.
Geometric, kinematic, and dynamic analysis of tectonic features. Practical exercises. Using aerial photos. Field trips.

399R. Academic Internship. (1–9:0:0 ea.) F, W, Sp, Su

404. Environmental Geology. (3:2:2) F Prerequisite: Geol 111 or 330.
Theoretical and applied environmental geology; groundwater and soil contamination, waste disposal, mine tailings, and drainage; concepts of hazard and risk. Field trips.

410. Geological Field Methods. (6:0:46) Sp Prerequisite: Geol 352, 370, 375.
Methods used to observe, collect, and interpret field data in geologic and environmental investigations. Fee.

411. Geomorphology and Geologic Hazards. (3:3:0) F Prerequisite: Geol 111.
Interpretive analysis of landforms and their geologic and environmental significance. Use of aerial photos. Field trips.

430. Senior Thesis. (3:Arr.:0) F Prerequisite: Geol 111, 112, 210, 351, 352, 370, 375.
Faculty-supervised research on a project of limited scope. Project is chosen and completed by the student. Written and oral presentation of findings required.

435. Introduction to Groundwater. (3:3:0) F Prerequisite: Geol 111 or 330; Math 110 or equivalent.
Introduction to the occurrence, movement, and properties of subsurface water; surface and groundwater relationships.

440. Solid Earth Geophysics. (3:3:0) W Prerequisite: Phscs 123.
Physics of the earth, including earthquake seismology. Gravity, seismic, magnetic, electrical, and heat flow properties and methods.

445. Geochemistry. (3:3:0) W Prerequisite: Chem 106, 107; or 112; Geol 352.
Applying elementary chemical principles to understand geologic processes and materials.

451. Optical Mineralogy. (3:2:2) W Prerequisite: Geol 351.
Interaction of light with crystalline material; using petrographic microscope; optical spectrometry.

460. Economic Geology. (3:2:2) F Prerequisite: Geol 352.
Principles, genesis, and localization of ore deposits, including laboratory study of ore minerals. Field trips.

480. Paleontology. (3:3:2) F Prerequisite: Geol 112.
Distribution, morphology, paleoecology, evolution, and stratigraphic significance of organisms in the geologic record. Field trips.

490R. Short Courses. (1–3:Arr.:0 ea.) On dem. Prerequisite: instructor's consent.
Short, undergraduate-level courses and extended field trips offered on an irregular basis. Fee.

491R. Geology Seminar. (0.5:1:0 ea.) F, W
Seminars on various geologic topics by guest speakers.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.) F, W, Sp, Su

500-Level Graduate Courses (available to advanced undergraduates)

510. Conducted Field Trips. (1:Arr.:3) F, W, Sp, Su Prerequisite: any college-level geology course and instructor's consent.
Geology field trips.

521. Borehole Geophysics and Geology. (3:3:0) F alt. yr. Prerequisite: Phscs 121, 220, Geol 351, 370.
Applied well log analysis, including conventional and new techniques. Subsurface geology and lithology determined from many logs. Determining porosity, permeability, and fluid saturation with hydrology, and hydrocarbon applications.

525. Petroleum Geology and Basin Analysis. (4:4:0) F alt. yr. Prerequisite: Geol 370.
Origin, migration, and entrapment of liquid and gaseous hydrocarbons. Tectonic basin development, including extensional, compressional, flexural, and strike-slip processes. Processes of basin-fill and thermal histories.

535. Contaminant Hydrogeology. (3:3:0) W Prerequisite: Geol 435 or equivalent.
Principles, tools, and applications used to solve heavy metal, organic, and radionuclide groundwater contamination problems. Topics include regulations, mass transport, multiphase flow, transformation, retardation, and attenuation.

545. Isotope Geochemistry. (3:1:4) W alt. yr. Prerequisite: Geol 352.
Use of stable and radioactive isotope systematics in geochronology and investigation of origins of rocks and waters.

551. Advanced Mineralogy. (3:2:2) W alt. yr. Prerequisite: Geol 351, Phscs 121, 123, 220.
Crystallography, structure, and crystal chemistry of major silicate mineral groups.

552. Igneous Petrology. (3:4:3) Prerequisite: Geol 352 or equivalent.
Origin and evolution of magmas, emphasizing trace element and isotopic compositions and intensive properties as calculated from mineral compositions.

559. Potential Field Methods. (3:3:0) F alt. yr. Prerequisite: Geol 375, Phscs 121, 123, 220.
Principles, tools, and methods used in gravity, magnetic, and electromagnetic exploration; acquisition, processing, and interpretation of gravity and magnetic data. Field trips.

560. Seismic Methods. (3:3:0) W alt. yr. Prerequisite: Geol 375, 559, Phscs 121, 123, 220.
Principles, tools, and methods used in seismic geophysics, with exploration, engineering, environmental, and hydrological applications. Includes acquisition, processing, and interpretation of seismic data. Field trips.

565R. Special Topics in Geology. (2–4:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
The following topics may be offered on demand:
—Geology for Teachers
—X-Ray Crystallography
—Instrumental Methods
—Ore Deposits

574. Advanced Stratigraphy. (3:3:0) Alt. yr. Prerequisite: Geol 370 or equivalent. Recommended: Geol 480.
Studying the stratigraphic record through modern methods of correlating stratal packages, emphasizing concepts of sequence and seismic stratigraphy, and utilizing methods of chronostratigraphy, biostratigraphy, lithostratigraphy, and absolute dating. Extended field trip required.

575. Advanced Structural Geology. (3:2:3) F alt. yr. Prerequisite: Geol 375, 410; or equivalents.
In-depth discussions of a variety of topics in structural geology, emphasizing current literature and problems.

580. Principles of Paleontology. (3:3:0) W alt. yr. Prerequisite: Geol 480.
Modern approaches to fossil study applied to areas of evolution, paleoecology, and biostratigraphy.

586. Vertebrate Paleontology. (4:3:2) F alt. yr. Prerequisite: instructor's consent.
History of vertebrate fossils. Field trips required. Credit applies in either zoology or geology. Lab studies.

590R. Short Courses. (1–3:3:3 ea.) F, W on dem.
Short graduate-level courses offered on a random basis. Fee.

591R. Seminar. (0.5:1:0 ea.) F, W
Seminars on various geologic topics by guest speakers. Total of 1 credit hour required.

599R. Academic Internship. (1–9:0:0 ea.) F, W, Sp, Su

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Geology Faculty

Professors

Christiansen, Eric H. (1986) BS, Brigham Young U., 1977; ScM, Brown U., 1978; PhD, Arizona State U., 1981.
Griffen, Dana Thomas (1979) BS, U.S. Naval Academy, 1965; MS, PhD, Virginia Polytechnic Inst., 1973, 1975.
Harris, Ronald A. (1998) BS, U. of Oregon, 1982; MS, U. of Alaska, 1986; PhD, U. of London, England, 1989.
Keith, Jeffrey D. (1990) BS, Brigham Young U., 1977; MS, PhD, U. of Wisconsin, Madison, 1980, 1982.
Kowallis, Bart J. (1982) BS, Brigham Young U., 1977; MS, PhD, U. of Wisconsin, Madison, 1979, 1981.
Mayo, Alan L. (1987) BS, MS, San Diego State U., 1970, 1972; PhD, U. of Idaho, 1981.
McBride, John H. (2002) BS, MS, U. of Arkansas, 1978, 1980; PhD, Cornell U., 1987.
Morris, Thomas H. (1990) BS, Brigham Young U., 1981; MS, PhD, U. of Wisconsin, Madison, 1985, 1986.
Ritter, Scott M. (1991) BS, MS, Brigham Young U., 1981, 1983; PhD, U. of Wisconsin, Madison, 1986.

Associate Professor

Nelson, Stephen T. (1997) BS, MS, Brigham Young U., 1984, 1987; PhD, U. of California, Los Angeles, 1991.

Assistant Professors

Bickmore, Barry (2001) BS, Brigham Young U., 1994; PhD, Virginia Tech., 1999.
Britt, Brooks B. (2002) BS, MS, Brigham Young U., 1982, 1987; PhD, U. of Calgary, Canada, 1993.

Associate Research Professors

Dorais, Michael J. (2000) BS, Brigham Young U., 1980; MS, U. of Oregon, 1983; PhD, U. of Georgia, 1987.
Tingey, David G. (1990) BS, MS, Brigham Young U., 1983, 1989.

Adjunct Faculty

Nixon, R. Paul (1989) BS, MS, U. of Utah, 1955, 1955; PhD, Brigham Young U., 1972.

Emeriti

Baer, James L. (1969) BS, Ohio State U., 1957; MS, PhD, Brigham Young U., 1962, 1968.
Best, Myron G. (1965) BS, U. of Utah, 1957; PhD, U. of California, Berkeley, 1961.
Brimhall, Willis H. (1955) BS, Brigham Young U., 1949; MS, U. of Arizona, 1951; BES, Brigham Young U., 1960; PhD, Rice U., 1966.
Bullock, Kenneth C. (1943) BS, MA, Brigham Young U., 1940, 1942; PhD, U. of Wisconsin, Madison, 1949.
Bushman, Jess R. (1955) BA, Brigham Young U., 1949; PhD, Princeton U., 1958.
Hamblin, Wm. Kenneth (1962) BS, MS, Brigham Young U., 1953, 1954; PhD, U. of Michigan, 1958.
Hintze, Lehi F. (1955) BA, U. of Utah, 1941; MA, PhD, Columbia U., 1949, 1951.
Miller, Wade E. (1971) AA, El Camino Coll., 1957; BS, Brigham Young U., 1960; MS, U. of Arizona, 1963; PhD, U. of California, Berkeley, 1968.
Petersen, Morris S. (1966) BS, MS, Brigham Young U., 1955, 1956; PhD, U. of Iowa, 1962.
Phillips, Wm. Revell (1957) BS, MS, PhD, U. of Utah, 1950, 1951, 1954.
Rigby, J. Keith (1953) BS, MS, Brigham Young U., 1948, 1949; PhD, Columbia U., 1952.

Germanic and Slavic Languages

Donald K. Jarvis, Chair
4094 JKHB, (801) 422-4923

College of Humanities Advisement Center
3078 JKHB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Germanic and Slavic Languages are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Students of foreign language and literature develop fluency in another language as well as sensitivity to their own language and cultural heritage, to the contributions and diversity of other peoples, and to the advantages of an international perspective.

Career Opportunities

Experience with the intellectual, artistic, and spiritual expressions of other cultures and of their own culture helps students qualify for advanced study at graduate and professional schools, especially in linguistics, literature, language teaching methodology, library science, humanities, business, law, and medicine. Those who accept employment on completion of the BA degree frequently serve in international business, in education, or in a government agency.

General Information

The Department of Germanic and Slavic Languages strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0

Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed for graduation 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	German
BA	German Teaching
BA	Russian
Minors	German
	German Teaching
	Russian
	Russian Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Language Acquisition (German or Russian)
MA	German Literature

For more information see the BYU 2003–2004 Graduate Catalog.

Afrikaans Courses (Afrik)

101, 102. First-Year Afrikaans. (4:5:1 ea.)
Basic language skills.

201. Second-Year Afrikaans. (4:5:1) Prerequisite: Afrik 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second-Year Afrikaans. (4:5:1) Prerequisite: Afrik 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Afrik 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Afrik 211R or equivalent experience.
Advanced conversational skills.

Bulgarian Courses (Bulgn)

101, 102. First-Year Bulgarian. (4:5:1 ea.)
Basic language skills.

201. Second-Year Bulgarian. (4:5:1) Prerequisite: Bulgn 102 or instructor's consent based on prior experience.
Grammar review and conversation.

202. Second-Year Bulgarian. (4:5:1) Prerequisite: Bulgn 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Bulgn 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

330. Cultural History of Bulgaria. (3:3:1) Prerequisite: Bulgn 201 or foreign residence experience.
Entry course for returned missionaries or others with extensive Bulgarian language experience. Required course for obtaining language credit by examination (Bulgn 101, 102, 201, 211R).

Czech Courses (Czech)

101, 102. First-Year Czech. (4:5:1 ea.)
Basic language skills.

201. Second-Year Czech. (4:5:1) Prerequisite: Czech 102 or equivalent experience.
Grammar review and conversation.

202. Second-Year Czech. (4:5:1) Prerequisite: Czech 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Czech 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

330. Cultural History of Czech Republic. (3:3:1) Prerequisite: Czech 201 or foreign residence experience.
Entry course for returned missionaries or others with extensive Czech or Slovak language experience. Required course for obtaining language credit by examination (Czech 101, 102, 201, 211R).

Dutch Courses (Dutch)

101, 102. First-Year Dutch. (4:5:1 ea.)
Basic language skills.

201. Second-Year Dutch. (4:5:1) Prerequisite: Dutch 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second-Year Dutch. (4:5:1) Prerequisite: Dutch 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Dutch 201 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Dutch 211R or equivalent experience.
Advanced conversational skills.

340. Introduction to Dutch Literature. (3:3:0) Prerequisite: reading knowledge of Dutch.
Readings from the best Dutch literature. Introduction to basic literary concepts. Required course for obtaining language credit by examination (Dutch 101, 102, 201, 211R).

Estonian Courses (Eston)

101. First-Year Estonian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

102. First-Year Estonian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

201. Second-Year Estonian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: foreign residence experience.
Credit by examination only.

330. Cultural History of Estonia. (3:3:1) Prerequisite: foreign residence experience.
Entry course for returned missionaries from Estonia. Required course for obtaining language credit by examination (Eston 101, 102, 201, 211R).

German

BA German (58 hours*)

General Information

1. Beginning German courses (101, 102, 201, 202) will be waived for students having comparable German training or experience. Consult department for information about placement examinations.
2. Germ 200R and 300R are designed to help students who require additional skill in speaking, reading, writing, or grammar. These courses are tutorials and are not required for the major.
3. In their final year, graduating seniors must register for 1 credit hour of Germ 400R in conjunction with the senior proficiency examination (offered fall and winter only).

Language Residency Programs

Vienna Study Abroad (Germ 201, 202, 211R, 310, 311R; 320 or 330). An opportunity for developing language proficiency as well as for becoming better acquainted with the history and culture of Europe. Spring and summer terms. Prerequisite: Germ 102 or equivalent.

Ten-Week German Summer Work Internship (Germ 311R). An opportunity to live and work in Germany or Switzerland. Housing is provided, usually with families in the host country. Prerequisite: Germ 201 or equivalent.

Foreign Language Student Residence (Germ 211R, 311R). An opportunity to live with other students who have pledged to use only German within the house and with head residents who are native speakers of German. Enrollment in a German class in addition to 211R and 311R is required while living in the house. Prerequisite: Germ 102 or equivalent.

German Summer Language Institute (Germ 211R, 311R). An intensive language program in German during the summer term. Participants live in the Student Foreign Language Residence and develop proficiency through intensive instruction and practical application of the language in daily living situations. Prerequisite: Germ 102 or equivalent.

German-Speaking LDS Mission or Other Extended German-Speaking Residency. Advanced students enroll in Germ 330 and, if desired, complete examinations for Germ 101, 102, 201, and 4 hours of 311R.

Study at a German University. The department strongly recommends that students spend their junior year at a German university taking courses that will apply toward the major. Universities in Germany charge no tuition, so, even though living costs are generally higher, with careful planning and modest financial support, most students find they can study at "Provo parity," that is, for about the same amount as a year of study in Provo. For advice about how to enroll and what financial support is available, contact the department office.

4. Students planning graduate studies in German should begin a second foreign language.

Major Requirements

1. At least 18 hours of upper-division major credit must be taken in residence at BYU.
2. Complete the following Level 1 courses:
   Germ 101, 102.
3. Complete the following Level 2 courses:
   Germ 201, 202.
4. Complete 2 hours of one of the following:
   Germ 211R, 311R.
5. Complete the following Level 3 courses:
   Germ 310, 320, 321, 330.
6. Complete the following or other approved advanced writing course:
   Germ 340.

   Note: Germ 202 is prerequisite to Germ 340.
7. Complete the following Level 4 courses:
   Germ 341, 342, 343.
8. Complete one course from the following:
   Germ 450, 460.
9. Complete two courses from the following:
   Germ 440R, 441R, 442R, 443R, 444R.
10. Complete one course from the following:
    Germ 497R, 498R.
11. Final German proficiency examination: complete the following during the last semester before graduation (not offered spring or summer):
    Germ 400R (1 hour required).

*Hours include courses that may fulfill GE or university requirements.

BA German Teaching (99–105 hours*, including licensure hours)

General Information

1. Beginning German courses (101, 102, 201, 202) will be waived for students having comparable German training or experience. Consult department for information about placement examinations.
2. Germ 200R and 300R are designed to help students who require additional skill in speaking, reading, writing, or grammar. These courses are tutorials and are not required for the major.
3. In their final year, graduating seniors must register for one credit hour of Germ 400R in conjunction with the senior proficiency examination. A minimum rating of Advanced—Low is required (not offered spring or summer).
4. The major culminates in a "professional year," consisting of Germ 377, ScEd 376R, and other courses of the student's choice taken fall semester. The winter semester consists solely of ScEd 476R, student teaching. A continuous yearlong placement in public schools is arranged for all three courses.

Language Residency Programs

Vienna Study Abroad (Germ 211R or 311R). An opportunity for developing language proficiency as well as for becoming better acquainted with the history and culture of Europe. Prerequisite: Germ 102 or equivalent.

Ten-Week German Summer Work Internship (Germ 311R). An opportunity to live and work in Germany or Switzerland. Housing is provided, usually with families in the host country. Prerequisite: Germ 201 or equivalent.

Foreign Language Student Residence (Germ 211R, 311R). An opportunity to live with other students who have pledged to use only German within the house and with head residents who are native speakers of German. Enrollment in a German class in addition to 211R and 311R is required while living in the house. Prerequisite: Germ 102 or equivalent.

German Summer Language Institute (Germ 211R, 311R). An intensive language program in German during the summer term. Participants live in the Student Foreign Language Residence and develop proficiency through intensive instruction and practical application of the language in daily living situations. Prerequisite: Germ 102 or equivalent.

German-Speaking LDS Mission or Other Extended German-Speaking Residency. Advanced students enroll in Germ 330 and, if desired, complete examinations for Germ 101, 102, 201, and 4 hours of 311R.

Study at a German University. For advice about how to enroll and what financial support is available, contact the department office.

Major Requirements

1. At least 18 hours of upper-division major credit must be taken in residence at BYU.
2. Complete an approved teaching minor (approximately 16–21 hours).
3. Declare the major at the Humanities Advisement Center and contact the German teaching major advisor to complete a German proficiency examination. A minimum initial rating of Intermediate—Mid is recommended.
4. Complete the following Level 1 courses:
   Germ 101, 102.
5. Complete the following Level 2 courses:
   Germ 201, 202.
6. Complete 2 hours of one of the following courses (or equivalent experience):
   Germ 211R, 311R.
7. Complete the following Level 3 courses:
   Germ 310, 320, 321, 330, 377 (fall only).
8. Complete the following or other approved advanced writing course:
   Germ 340.

   Note: Germ 202 is prerequisite to Germ 340.
9. Complete the following Level 4 courses:
   Germ 341, 342, 343, 460.
10. Complete two courses from the following Level 4 courses:
    Germ 440R, 441R, 442R, 443R, 444R.
11. Complete one course from the following:
    Germ 497R, 498R.
12. Final German proficiency examination: complete the following during the last semester before graduation (not offered spring or summer). A minimum proficiency rating of Advanced—Low is required:
    Germ 400R (1 hour required).
13. Complete the Professional Education Component (25–26 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

Minor German (18 hours*)

Minor Requirements

1. Complete the following:
   Germ 310, 320, 330.
2. Complete one course from the following:
   Germ 341, 342, 343.
3. Complete 6 additional hours from the following:
   Germ 321, 340, 341, 342, 343, 440R, 441R, 442R, 443R, 444R, 450, 460, 497R, 498R.

*Hours include courses that may fulfill GE or university requirements.

Minor German Teaching (22 hours)

Minor Requirements

1. Declare the minor at the Humanities Advisement Center and contact the German teaching major advisor to complete a German proficiency examination. A minimum initial proficiency rating of Intermediate—Mid is recommended.
2. Complete the following:
   Germ 310, 320, 330, 377.

   Note: Germ 377 must be taken concurrently with ScEd 376R fall semester and prior to student teaching; however, Germ 377 may be waived for students who have taken a methods course for another language.
3. Complete one course from the following:
   Germ 341, 342, 343.
4. Complete 6 hours from the following:
   Germ 321, 340, 341, 342, 343, 440R, 441R, 442R, 443R, 444R, 450, 460, 497R, 498R.
5. Final German proficiency examination: complete the following during the last semester before graduation (not offered spring or summer). A minimum proficiency rating of Advanced—Low is required:
   Germ 400R (1 hour required).

German (Germ)

Undergraduate Courses

101. First-Year German. (4:5:1) For those who have had no German. Independent Study also.
Listening, speaking, reading, writing, grammar, and culture.

102. First-Year German. (4:5:1) Independent Study also. Prerequisite: C grade or better in Germ 101 or equivalent.
Listening, speaking, reading, writing, grammar, and culture.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
On-the-job experience evaluated by supervisor and posted on student's transcript. Report required. Not applicable to German major or minor.

200R. Second-Year Proficiency Tutorial. (1–3:Arr.:Arr. ea.) F, W Prerequisite: Germ 102 or equivalent.
Individualized skill building in listening, speaking, reading, writing, and grammar.

201. Second-Year German. (4:5:1) Prerequisite: C grade or better in Germ 102 or equivalent.
Reading, writing, grammar, culture, listening, and speaking.

202. Second-Year German. (4:5:1) Prerequisite: C grade or better in Germ 201 or equivalent.
Culminating course for GE Foreign Language requirement emphasizing culture and literature. Continued writing, grammar, listening, and speaking. Prerequisite to all 300- and 400-level courses.

211R. Intermediate Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Germ 102 or equivalent experience.
Offered only in language residency programs: Foreign Language Student Residence, German Summer Language Institute, German-speaking work internship, German-speaking study abroad.

300R. Third-Year Proficiency Tutorial. (1–3:Arr.:Arr. ea.) F, W Prerequisite: Germ 202 or equivalent.
Individualized skill building in listening, speaking, reading, writing, and grammar.

310. German Phonetics and Pronunciation. (3:3:0) Prerequisite: Germ 202 or equivalent experience.
Perfecting listening and speaking skills through applying phonetics and practicing speaking and listening.

311R. Advanced Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Germ 211R or equivalent experience.
Offered only in language residency programs: Foreign Language Student Residence, German Summer Language Institute, German-speaking work internship, German-speaking study abroad.

320. Grammar and Composition 1. (3:3:0) Independent Study also. Prerequisite: Germ 310 or concurrent enrollment.
Perfecting grammar, reading, writing, listening and speaking skills using current news items from German-speaking countries as a basis.

321. Grammar and Composition 2. (3:3:0) Independent Study also. Prerequisite: Germ 320.
Continuation of Germ 320.

330. Cultural History of German-Speaking Peoples. (3:3:1) Honors also. Prerequisite: Germ 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent German language experience. Culture, with listening, speaking, reading, writing, and grammar as secondary emphases. Required course for obtaining language credit by examination (Germ 101, 102, 201, 311R). Prerequisite to all 400-level courses.

340. Introduction to Literary Analysis. (3:3:0) Prerequisite: Germ 202 or equivalent experience.
Methods of literary interpretation. Reading, writing, and research skills integral to the literary analysis expected in German major or minor courses. Fills GE Advanced Writing requirement.

341. Masterpieces of German Literature 1. (3:3:0) Prerequisite: Germ 320, 321, 330, 340.
Close reading and analysis of literature from medieval through romantic period.

342. Masterpieces of German Literature 2. (3:3:0) Independent Study also. Prerequisite: Germ 320, 321, 330, 340.
Close reading and analysis of literature from realism to the present.

343. Introduction to Literary Theory. (3:3:0) Prerequisite: Germ 320, 321, 330, 340.
Methods of critical theories and their application to German prose, drama, poetry, and film. Preparation for 440R–444R sequence.

370. German Teaching in Higher Education. (3:2:1) W Prerequisite: Germ 310, 320, 330.
Theories, methods, and techniques of second-language learning and teaching applied to the university context; practicum in department German courses.

377. German Language Teaching Procedures. (3:3:2) Prerequisite: Germ 310, 320, 321, 330; ScEd 276R.
Required for teaching majors and minors. Register fall semester concurrently with the German/Russian section of ScEd 376R. Meets with Russ 377.

399R. Academic Internship: German Work. (1–9:Arr.:Arr. ea.)
On-the-job ten-week summer language experience in German-speaking countries. Report required. Not applicable to German major or minor.

400R. Fourth-Year Proficiency Tutorial. (0–3:Arr.:Arr. ea.) F, W Prerequisite: senior status.
Individualized skill building in listening, speaking, reading, writing, and grammar. Final proficiency examination administered.

440R. German Literary Periods and Movements. (3:3:0 ea.) Independent Study also. Prerequisite: Germ 320, 321, 330, 340.
In-depth study of a period or movement such as medieval, Renaissance, baroque, eighteenth century, romanticism, classicism, realism, fin-de-siecle Vienna, naturalism, expressionism, post-war, contemporary.

441R. Studies in German Literary Genres. (3:3:0 ea.) Prerequisite: Germ 320, 321, 330, 340.
In-depth study of a genre such as drama, novel, novella, lyric, film.

442R. Major German Authors. (3:3:0 ea.) Prerequisite: Germ 320, 321, 330, 340.
In-depth study of one author such as Lessing, Goethe, B.V. Arnim, Kleist, Storm, Rilke, Brecht, Mann, Kafka, or Bachmann.

443R. Studies in Literary Theory. (3:3:0 ea.) Prerequisite: Germ 320, 321, 330, 340.
In-depth study of primary texts by contemporary literary theorists. May include topics such as Frankfurter school, feminist criticism, reader response, or post-structuralism.

444R. Interdisciplinary Studies. (3:3:0 ea.) Prerequisite: Germ 320, 321, 330, 340.
Studies linking German literature, film, and the arts within German culture or across national boundaries.

450. History of the German Language. (3:3:0) Prerequisite: Germ 310, 320, 321.
Linguistic survey of the German language from Indo-European to modern times, including phonology, morphology, syntax, and lexicon.

460. Structure of Modern German. (3:3:0) Prerequisite: Germ 310, 320, 321.
Structural and socio-linguistic study of contemporary German

490R. Special Studies in German. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's consent.
Variable credit for individual or group study as approved for special circumstances. Not applicable to German major or minor.

497R. Senior Seminar in German Language. (3:3:0 ea.) Prerequisite: senior status.
Culminating senior-level course in which acquired knowledge and critical skills are brought to bear on a selected language topic. In-depth senior paper on one aspect of topic.

498R. Senior Seminar in German Literature. (3:3:0 ea.) Prerequisite: senior status.
Culminating senior-level course in which acquired knowledge and critical skills are brought to bear on a selected literature topic. In-depth senior paper on one aspect of topic.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Hungarian Courses (Hung)

101, 102. First-Year Hungarian. (4:5:1 ea.)
Basic language skills.

201. Second-Year Hungarian. (4:5:1) Prerequisite: Hung 102 or instructor's consent based on prior Hungarian experience.
Grammar review and conversation.

202. Second-Year Hungarian. (4:5:1) Prerequisite: Hung 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Hung 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

330. Cultural History of Hungary. (3:3:1) For returned missionaries and others with extensive Hungarian language experience. Prerequisite: Hung 201 or foreign residence experience.
Required course for obtaining language credit by examination (Hung 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

Latvian Courses (Latvi)

101. First-Year Latvian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

102. First-Year Latvian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

201. Second-Year Latvian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: foreign residence experience.
Credit by examination only.

330. Cultural History of Latvia. (3:3:1) Prerequisite: foreign residence experience.
Entry course for returned missionaries from Latvia. Required course for obtaining language credit by examination (Latvi 101, 102, 201, 211R).

Lithuanian Courses (Lithu)

101. First-Year Lithuanian. (4:5:1) Prerequisite: foreign residency experience.
Credit by examination only.

102. First-Year Lithuanian. (4:5:1) Prerequisite: foreign residency experience.
Credit by examination only.

201. Second-Year Lithuanian. (4:5:1) Prerequisite: foreign residency experience.
Credit by examination only.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: foreign residence experience.
Credit by examination only.

330. Cultural History of Lithuania. (3:3:1) Prerequisite: foreign residence experience.
Entry course for returned missionaries from Lithuania. Required course for obtaining language credit by examination (Lithu 101, 102, 201, 211R).

Polish Courses (Polsh)

101. First-Year Polish. (4:5:1)
Basic language skills.

102. First-Year Polish. (4:5:1) Prerequisite: Polsh 101.
Continuation of Polsh 101.

201. Second-Year Polish. (4:5:1) Prerequisite: Polsh 102 or foreign residence experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second-Year Polish. (4:5:1) Prerequisite: Polsh 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Polsh 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Polsh 211R or foreign residence experience.
Advanced conversational skills.

330. Cultural History of Poland. (3:3:1) For returned missionaries or others with extensive Polish language experience. Prerequisite: Polsh 201 or foreign residence experience.
Required course for obtaining language credit by examination (Polsh 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

340. Polish Literature Survey. (3:3:0) Prerequisite: Polsh 330.
Survey of Polish literature from Kochanowski to Szymborska, including works by Rej, Krasicki, Mickiewicz, Slowacki, Norwid, Prus, Sienkiewicz, Zeromski, Reymont, and others.

Russian

BA Russian (61–79 hours*)

General Information

Important Note for Returned Russian-Speaking Missionaries: Register for third-year Russian classes. Russ 330 is recommended. Russ 202 will be waived as a requirement for Russian majors and should not be taken except when remedial work is necessary and permission is obtained from the section leader. Credit for Russ 101, 102, 201, and 211 is available through a test given as part of Russ 330.

Major Requirements

1. Complete the following preparatory courses:
   Russ 101, 102, 201, 202.
2. Complete the following major courses:
   Russ 321, 322, 330, 421, 422, 441, 442, 492R.
3. Complete one course from the following:
   Russ 331, 332.
4. Complete one of the following options:
   Either Russ 340
   Or Russ 341 and 342.
5. Complete one of the following options:
   a. Complete any second university major.
   b. Complete a program of study proposed by the student and approved by the Russian section. The program may be a substantial minor, should complement the student's educational and professional goals, and must be convincingly described in a letter submitted to the Slavic section leader, preferably during the year before graduation. Students submitting petitions later do so at their own risk.

Note: In addition to completing other Russian course work, it is expected that majors who have not spent an extended period in Russia will live for at least a semester in the Russian Student Foreign Language Residence *and* complete the BYU or approved equivalent Study Abroad program in Russia.

*Hours include courses that may fulfill GE or university requirements.

Minor Russian (32 hours*)

Minor Requirements

1. Complete the following:
   Russ 101, 102, 201, 202.
2. Complete the following with the BYU St. Petersburg Study Abroad program or an approved equivalent program:
   Russ 211, 321, 330, 490R.

Note: This minor is designed for students of Russian who have had no missionary-level residency experience in Russia. Returned missionaries should seek a Russian-related minor through the International and Area Studies Department's interdisciplinary Russian Studies minor.

*Hours include courses that may fulfill GE or university requirements.

Minor Russian Teaching (31–32 hours*)

Note: Before declaring a Russian teaching minor, candidates must consult with the section leader.

Minor Requirements

1. Register with the secretary in the department office.
2. Complete the following:
   Russ 101, 102, 201.
3. Complete the following:
   Russ 202 (see note under information to returned Russian-speaking missionaries), 330, 340, 377. If 202 was waived, take 441 or 442.

   Note: Russ 377 must be taken concurrently with ScEd 376R fall semester and prior to student teaching; however, Russ 377 may be waived for students who have taken a methods course for another language.
4. Complete one course from the following:
   Russ 321, 322.

*Hours include courses that may fulfill GE or university requirements.

Russian (Russ)

Undergraduate Courses

100A. Beginning Russian, Slow Paced. (2:2:1)
Equals first half of Russ 101. For busy working people and others unable to devote as much time as full-time students can.

100B. Beginning Russian, Slow Paced. (3:3:1) Prerequisite: Russ 100A.
Equals second half of Russ 101.

101, 102. First-Year Russian, Parts 1 and 2. (5:5:1 ea.)

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
On-the-job experience evaluated by supervisor and posted on student's transcript. Report required. Not applicable to major or minor.

201. Second-Year Russian, Part 1. (5:5:1) Prerequisite: Russ 102 or instructor's consent, based on prior Russian language experience.
Grammar review and conversation.

202. Second-Year Russian, Part 2. (5:5:1) Prerequisite: Russ 201 or instructor's consent.
Grammar review and discussion in Russian of both expository and literary readings. Culminating course for GE Foreign Language requirement.

211. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Russ 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills. Offered only as credit by examination upon completion of Russ 330 (maximum 1 hour) or through Study Abroad experience in Russian (1–5 hours).

321, 322. Third-Year Russian, Parts 1 and 2. (2:2:0 ea.) Prerequisite: Russ 202 or equivalent.
Grammar and composition, case government, listening and speaking skills.

330. Cultural History of Russia. (3:3:1) Prerequisite: Russ 202 or foreign residence experience.
Required course for obtaining language credit by examination (Russ 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

331. Masterpieces of Russian Film. (2:2:0) Prerequisite: Russ 330.
Developing listening comprehension and speaking skills through discussing Russian films.

332. Translation and Interpretation. (2:2:0) Prerequisite: Russ 330.
Developing translation and interpretation skills.

340. Masterpieces of the Russian Novel in English. (3:3:0)
Survey of Russian novels by such authors as Pushkin, Tolstoy, Dostoevsky, and Pasternak.

341. Dostoevsky's Major Works in Translation. (3:3:0)
Survey of Dostoevsky's major works in English translation.

342. Tolstoy's Major Works in Translation. (3:3:0)
Survey of Tolstoy's major works in English translation.

377. Language Teaching Procedures. (3:3:2) Prerequisite: Russ 201; ScEd 276R.
Required for Russian teaching minors. Register fall semester concurrently with the German/Russian section of ScEd 376R. Meets with Germ 377. Current or prospective student instructors register for Germ 370 winter semester.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Russ 202 and department's consent.
On-the-job experience in Russian-related areas. Not applicable to any Russian major or minor. Report required.

421. Fourth-Year Russian, Part 1. (3:3:0) Prerequisite: Russ 321, 322, 330.
Contemporary language and culture.

422. Fourth-Year Russian, Part 2. (3:3:0) Prerequisite: Russ 321, 322, 330.
Structure of Russian.

441. Masterpieces of Russian Literature 1. (3:3:0) Prerequisite: Russ 321, 322; 340 or 341 and 342.
Survey of shorter masterpieces in Russian.

442. Masterpieces of Russian Literature 2. (3:3:0) Prerequisite: Russ 321, 322; 340 or 341 and 342.
Survey of shorter masterpieces in Russian.

490R. Special Studies in Russian. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Variable credit for individual or group study as approved for special circumstances.

492R. Senior Seminar: Passages and Conclusions. (2:2:0) Prerequisite: Russ 441 or 442.
In-depth study of a limited area of literature or language. Content varies; requires research and writing.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Serbo-Croatian Courses (SrbCr)

101. First-Year Serbo-Croatian. (4:5:1)
Basic language skills.

102. First-Year Serbo-Croatian. (4:5:1) Prerequisite: SrbCr 101.
Continuation of SrbCr 101.

201. Second-Year Serbo-Croatian. (4:5:1) Prerequisite: SrbCr 102 or foreign residence experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second-Year Serbo-Croatian. (4:5:1) Prerequisite: SrbCr 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: SrbCr 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: SrbCr 211R or foreign residence experience.

330. Cultural History of the Former Yugoslavia. (3:3:1) For returned missionaries or others with extensive Serbo-Croatian language experience. Prerequisite: SrbCr 201 or foreign residence experience.
Required course for obtaining language credit by examination (SrbCr 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

Slovenian Courses (Sln)

101. First-Year Slovenian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

102. First-Year Slovenian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

201. Second-Year Slovenian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

211R. Second-Year Slovenian. (1–5:Arr.:Arr. ea.) Prerequisite: foreign residence experience.
Credit by examination only.

330. Cultural History of Slovenia. (3:3:1) For returned missionaries or others with extensive Slovenian language experience. Prerequisite: foreign residence experience.
Required course for obtaining language credit by examination (Sln 101, 102, 201, 211R).

Ukrainian Courses (Ukrai)

101, 102. First-Year Ukrainian. (4:5:1 ea.)
Basic language skills.

201. Second-Year Ukrainian. (4:5:1) Prerequisite: Ukrai 102 or instructor's consent.
Grammar review and conversation.

202. Second-Year Ukrainian. (4:5:1) Prerequisite: Ukrai 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Ukrai 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

330. Cultural History of Ukraine. (3:3:1) For returned missionaries or others with extensive Ukrainian language experience. Prerequisite: Ukrai 201 or foreign residence experience.
Required course for obtaining language credit by examination (Ukrai 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

Germanic and Slavic Languages Faculty

Professors

Browning, Gary L. (1974) BA, Brigham Young U., 1965; MA, Syracuse U., 1967; PhD, Harvard U., 1974.
Hart, David Kay (1984) BA, Brigham Young U., 1973; MA, PhD, U. of Washington, 1975, 1979.
Jarvis, Donald K. (1970) BA, Brigham Young U., 1964; PhD, Ohio State U., 1970.
Jones, Randall L. (1978) BA, MA, Brigham Young U., 1963, 1964; MA, PhD, Princeton U., 1966, 1970.
Keele, Alan F. (1971) BA, Brigham Young U., 1967; PhD, Princeton U., 1971.
Kelling, Hans-Wilhelm (1962) BA, Brigham Young U., 1958; MA, PhD, Stanford U., 1960, 1967.
Lyon, James K. (1994) BA, MA, U. of Utah, 1958, 1959; PhD, Harvard U., 1963.
Plummer, Thomas G. (1985) BA, U. of Utah, 1965; MA, PhD, Harvard U., 1966, 1972.

Associate Professor

James, Michelle (1987) BA, Weber State Coll., 1978; MA, PhD, U. of Utah, 1981, 1987.

Associate Teaching Professors

Michailova, Victoria V. (1990) Dipl, Hertzen Pedagogical Inst., St. Petersburg, Russia, 1972.
Whipple, Walter (1993) BA, MM, Brigham Young U., 1968, 1969; DMA, U. of Southern California, 1972; TESOL, Brigham Young U., 1989.

Assistant Professors

Brewer, Cindy L. (1998) BA, MA, Brigham Young U., 1990, 1991; PhD, U. of Utah, 1998.
Kelly, Michael R. (1993) BS, MPA, Brigham Young U., 1978, 1983; MA, PhD, Ohio State U., 1990, 1996.
Lund, Randall J. (1988) BA, MA, Brigham Young U., 1970, 1973; PhD, U. of Minnesota, 1986.
Lundberg, Grant H. (1999) BA, Brigham Young U., 1992; MA, PhD, U. of Kansas, 1994, 1995.
McFarland, Robert B. (2001) BA, MA, Brigham Young U., 1992, 1995; PhD, U. of California, Berkeley, 2000.
Solovyova, Raisa (1992) BA, Tomsk State U., Russia, 1971; MA, Novosibirsk State U., Russia, 1982; PhD, Kharkov State U., Ukraine, 1987.

Emeriti

Baker, Joseph O. (1967) BA, U. of Utah, 1964; PhD, Tulane U., 1968.
Davis, Garold Neil (1968) BA, MA, Brigham Young U., 1958, 1959; PhD, Johns Hopkins U., 1962.
Folsom, Marvin H. (1961) BA, MA, Brigham Young U., 1956, 1957; PhD, Cornell U., 1961.
Gubler, Donworth V. (1949) BA, MA, PhD, Brigham Young U., 1948, 1949, 1971.
Luckau, Paul F. (1964) BA, MA, U. of Utah, 1949, 1955.
Rogers, R. Max (1945) BA, MA, Brigham Young U., 1940, 1942; PhD, Stanford U., 1951.
Rogers, Thomas F. (1969) BA, U. of Utah, 1955; MA, Yale U., 1962; PhD, Georgetown U., 1968.
Speidel, Walter H. (1963) Abitur, Germany, 1940; Diplomdolmetscher und -Übersetzer, Fachhochschule für das Dolmetscherwesen, Stuttgart, Germany, 1948; MA, U. of Utah, 1960; PhD, U. of Kansas, 1963.
Watkins, Arthur R. (1952) BA, MA, Brigham Young U., 1941, 1942; PhD, Stanford U., 1948.

Greek

See Humanities, Classics, and Comparative Literature section and Center for Language Studies section of this catalog.

Health Science

Gordon B. Lindsay, Chair
213 RB, (801) 422-4428

College of Health and Human Performance Advisement Center
203 RB, (801) 422-3638

Admission to Degree Program

All degree programs in the Department of Health Science are open enrollment. In addition, special limitations apply for teaching majors.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Health Science
Emphases:
Community Health Education
School Health Education

Minors Health Education
Driver Safety Education

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MPH Public Health

For more information see the BYU 2003–2004 Graduate Catalog.

BS Health Science: Community Health Education Emphasis (55 hours*)

The Discipline

Community health educators are trained to plan, implement, and evaluate community health interventions. Courses provide students with an overview of chronic and infectious disease, injury prevention, substance abuse, environmental health, reproductive health, first aid, consumer health, fitness, nutrition, and spiritual/mental health. Using the tools of education, behavior change, social marketing, health communication, community mobilization, coalitions, policy, and advocacy, health educators are employed under a range of job titles: community health specialists, patient educators, health promotion specialists, trainers, community organizers, and health program managers.

Career Opportunities

Typical daily activities include working with media, meeting with various coalitions, developing educational materials, planning needs assessments, evaluating interventions, and writing reports and grants. Community health educators are trained to mobilize citizens to develop population-based solutions to important health issues. Prospective community health majors should realize that only a small portion of a community health educator's time may be spent teaching groups or individuals.

Community health graduates are qualified to work in governmental health agencies on the local, state, federal, and international levels. Private-sector employment can be found in managed care organizations (MCOs), hospitals, clinics, voluntary health agencies such as the American Heart Association, and non-governmental organizations. Opportunities for employment in community health are competitive. Certain starting positions are filled by candidates with a master's degree. Students can increase the likelihood of obtaining a community health position by balancing classroom activities with voluntary or paid service to health agencies. Obtaining skill-based certifications and careful development of a professional portfolio enhance employment opportunities. Entry-level salaries generally begin at $30,000 or higher. However, salaries will vary based on the specific organization and geographic location.

Students who plan a subsequent degree in allied health (such as a nurse, occupational therapist, physician assistant, dental assistant, etc.) should consider majoring in the biological sciences, which may provide a more appropriate preparation.

During the last two semesters, students will complete a 6-credit-hour, 300-hour internship that will give them an opportunity to apply the concepts they have learned in class to the real world. It is also an opportunity to begin networking with professionals and gain experience to include on their resumé. Internships can be completed at a variety of locations throughout Utah, the nation, and internationally.

Major Requirements

1. Complete the following courses:
   Hlth 200, 302, 365, 420, 451, 457, 460, 461, 478, 482, 485.
   PDBio 205.
   Stat 221.
2. Complete 1 hour of the following:
   Hlth 498R.
3. Complete 6 hours of the following:
   Hlth 496R.
4. Complete 6 hours of the following:
   Hlth 320, 370, 383, 403R, 436, 450, 452, 455, 466, 480, 490, 495R.
5. Complete 6 hours from the following:
   BusM 340.
   Comms 211, 235.
   Econ 230.
   IAS 220.
   MMBio 221, 222.
   NDFS 100, 201.
   PDBio 220.
   Psych 361.
   Soc 113.
   Stat 334.
   TMA 150.

*Hours include courses that may fulfill GE or university requirements.

BS Health Science: School Health Education Emphasis (74–80 hours*, including licensure hours)

The Discipline

The health teaching major prepares students to become health educators in secondary schools. Curriculum development, instructional methods, acquisition and evaluation of resources, and assessment are among the skills required. Health educators teach decision making and effective communication, addressing such areas of concern as substance abuse and addictive behaviors, human sexuality, chronic disease, nutrition, consumer advocacy, emergency care, and injury prevention.

Adolescence is a time where habits are being established and attitudes are being formed that will influence people the rest of their lives. The health educator plays an important role in teaching knowledge and skills that will enable young people to cope and to flourish in healthy ways in an ever-changing society.

Career Opportunities

Graduates seek careers teaching health in the secondary schools in combination with a chosen minor. With an advanced degree, career teaching positions at institutions of higher learning become accessible.

Major Requirements

1. An approved teaching minor must be completed (approximately 16–21 hours).
2. Complete the following:
   Hlth 200, 320, 370, 381, 420, 421, 436, 460, 461.
   NDFS 100.

   Note: Hlth 200 is prerequisite to Hlth 381, 421.
3. Complete 6 hours from the following:
   Hlth 365, 410, 451.
   PDBio 205.
4. Complete the Professional Education Component (25–26 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

Minor Health Education (22 hours)

Minor Requirements

1. Complete the following:
   Hlth 200, 320, 365, 381, 421, 460.
2. Complete 5 hours from the following:
   Hlth 370, 420, 436, 451, 461, 466, 480.

Minor Driver Safety Education (16 hours)

Minor Requirements

1. Complete the following:
   Hlth 444, 445, 446, 460.
2. Complete 5 hours from the following:
   Hlth 320, 402R, 420.
3. Students majoring in health sciences may not double-count hours in the driver education minor.

Health/Physical Education (HEPE)

Undergraduate Course

129. Fitness and Lifestyle Management. (2:2:1)
Why a healthy lifestyle is needed and how to write individualized programs to meet these needs.

Health Science (Hlth)

Undergraduate Courses

10. Beginning Driver Education. (0:0:2)
Satisfies the prerequisite necessary to apply for the Utah driver's license. No driving experience necessary. Fee.

200. History, Philosophy, and Foundations of Health. (2:2:0)
Entry class for all health sciences majors. Principles of the discipline and preparation for professional service. Theoretical models of health, professional and ethical issues, and future trends.

201. Contemporary Issues for Student Athletes (2:2:0)
Eligibility issues for intercollegiate student athletes. Skills relating to academic performance and career selection.

302. Computer Applications in Health Education. (3:1:0) Independent Study also.
Exploring computer applications in health sciences: health assessments, risk approvals, health program planning and database access, computer-assisted instruction, biostatistical health applications, medical-legal issues. Should be taken sophomore year.

320. Advanced First Aid and Safety. (3:3:0)
In-depth coverage of first aid procedures for injuries and sudden illness. Leads to first aid and CPR certifications.

361. School Health for Elementary Teachers. (2:2:0)
Role of the elementary teacher as a health educator; methods, strategies, and student health issues.

365. Health Behavior and Theory. (3:3:0)
Positive emotional health; attitude and behavior modification. Changing negative health behavior to positive.

370. Consumer Health. (2:2:0) Independent Study also.
Current consumer health issues; selecting proper health products, services, and information; sources of consumer health protection.

381. Health Science Teaching Methods. (3:3:0) Prerequisite: Hlth 200.
Teacher and student activities required for conceptual learning in health science.

383. Mind/Body Health. (2:2:0)
Theories and research on the effect of emotions and attitudes on health: how negative emotions increase disease susceptibility and positive emotions encourage immune strength, health, and healing.

402R. Driver and Safety Education Workshop. (1–7:0:2 ea.) Independent Study also.
Current safety education problems.

403R. Health Problems Workshop. (1–5:Arr:Arr.ea.)

410. Stress Management. (2:2:0)
Practical experience in learning to understand and manage stress.

420. Injury Prevention. (2:2:0) Independent Study also.
Concepts and interventions for injury prevention; safety instruction.

421. Secondary Health Education Curriculum. (3:3:0) Prerequisite: Hlth 200, 381.
Courses of study in health, with specific program planning and health course curriculum and content review.

436. Social Hygiene. (3:3:0)
Preparing prospective teachers to teach family life education as it relates to health. Sexual maturation, family health problems, parenthood, and other social hygiene factors.

444. Organization and Administration of Driver and Traffic Safety Education. (2:2:0) Independent Study also.
Organization, administration, and supervision of high school driver education programs.

445. Driver and Traffic Safety Education. (4:2:4) Prerequisite: Hlth 444.
Prepares teachers to instruct classroom and behind-the-wheel phases of driver education.

446. Driver Simulators and Driving Ranges. (2:2:1)
Simulator and multiple-car driving range methodology, emphasizing operation and maintenance.

450. Women's Health Issues. (2:2:0)
Analyzing health care options for women in today's society.

451. Community Health. (2:2:0) Independent Study also. Prerequisite: Hlth 200.
Individual, school, and community involvement in preventing disease, improving human efficiency, and prolonging life. Emphasis is placed on needs assessment and community resources for health promotion.

452. Environmental Health. (3:3:0)
Environmental factors as determinants of human health: ecosystem and population dynamics; biological, chemical, and physical hazards; risk assessment; economic, political, cultural, and genetic factors.

455. Work Site Health Promotion. (3:3:0)
Planning for the effective designing, marketing, implementing, and administering of health promotion programs.

457. Health Communication. (3:3:0) Prerequisite: Hlth 451.
Contemporary health communication issues in community health education. Communication strategies, models, and theories. Micro-level (interactions with other people) and macro-level (organizational and mass-mediated) application.

460. Substance Abuse and Addictive Behavior. (3:3:0) Independent Study also.
Physiological, psychological, sociological, and legal implications of drug use and addictive behaviors, emphasizing nature, cause, treatment, and prevention.

461. Infectious and Chronic Disease. (3:3:0) Prerequisite: PDBio 305.
Dealing with the major factors in health and disease as they affect the several body systems.

466. Health and the Aging Process. (2:2:1) Independent Study also.
Theories of aging as a normal process, as a pathological process; health promotion and extension of life.

478. Principles of Epidemiology. (3:3:0) Prerequisite: Stat 221 or instructor's consent.
Applying analytical tools to study acute and chronic disease to facilitate investigation of and control of epidemics.

480. International Health. (2:2:0)
Health values, beliefs, and practices of other cultures, emphasizing how these beliefs and practices affect health and well-being.

482. Program Planning and Evaluation. (3:3:0) Prerequisite: Hlth 451.
Introduction to needs assessment, program development, evaluation, and implementation of community health programs.

485. Community Health Methods. (3:2:1) Prerequisite: Hlth 451.
Methods for promoting healthy lifestyles.

490. Current Issues in Public Health Education. (2:2:0) Prerequisite: health science major; junior or senior status.
Contemporary research, literature, and views as applied to public and international health.

495R. Special Readings in Health. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Guided, independent studies under faculty supervision.

496R. Academic Internship. (1–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: Hlth 451, 457, 482, 485.
On-the-job experience.

498R. Professional Development Senior Seminar. (1:1:0 ea.) Prerequisite: senior status.
Career trends, employment strategies, and current professional issues for community health majors.

500-Level Graduate Course (available to advanced undergraduates)

599R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: completion of a major in health sciences or graduate student status in health sciences.
On-the-job experience.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Health Science Faculty

Professors
Cole, Eugene C. (2002) BA, Adelphi U., 1968; MSPH, DRPH, U. of North Carolina, 1979, 1983.
Heiner, Steven W. (1969) BS, MS, EdD, U. of Utah, 1955, 1962, 1969.
Karren, Keith J. (1971) BS, MS, Brigham Young U., 1969, 1970; PhD, Oregon State U., 1975.
Lindsay, Gordon B. (1994) BS, Brigham Young U., 1978; MS, U. of Utah, 1980; PhD, Ohio State U., 1984.
Page, Randy M. (2003) BS, MHE, Brigham Young U., 1979, 1980; PhD, Southern Illinois U., 1982.
Thygerson, Alton L. (1967) BS, MHEd, EdD, Brigham Young U., 1962, 1965, 1969.

Associate Professors
Barnes, Michael D. (1997) BS, MS, Brigham Young U., 1989, 1990; PhD, Southern Illinois U., Carbondale, 1993.
Dearden, Kirk Allen (2002) BA, Boston U., 1985; DPH, MPH, U. of Alabama, Birmingham, 1990, 1988.
Hawks, Steven R. (2000) BA, MA, MBA, EdD, Brigham Young U., 1982, 1985, 1985, 1990.
James, Sherald W. (1962) BS, MS, Brigham Young U., 1956, 1962.
Merrill, Ray M. (1998) BA, MS, Brigham Young U., 1986, 1989; PhD, Arizona State U., 1994; MPH, Harvard U., 1995.
Neiger, Brad L. (1997) BS, MS, Brigham Young U., 1983, 1984; PhD, U. of Utah, 1991.
Novilla, M. Lelinneth L. B. (2003) BS, U. of the Philippines, 1985; MPH, U. of Utah, 1999; MD, U. of the City of Manila, Philippines, 1990.

Assistant Professors
Coon, Paul E. (1972) BS, MS, Brigham Young U., 1968, 1972.
Hill, Sue (2000) BS, BS, Eastern Oregon State Coll., 1985, 1986; MS, Brigham Young U., 1992; PhD, Southern Illinois U., 1997.
Thackeray, Rosemary (2000) BS, Utah State U., 1991; MPH, PhD, U. of Utah, 1996, 2000.

Emeriti
Burgener, O. Robert (1964) BS, Utah State U., 1953; MPH, U. of California, Berkeley, 1964; PhD, U. of Utah, 1972.
Hirschi, Willard M. (1964) BS, Brigham Young U., 1956; MA, Arizona State U., 1960.
Hurley, D. Richard (1971) BS, MS, Brigham Young U., 1963, 1964; PhD, Southern Illinois U., 1971.
Petersen, Ray A. (1969) BS, MHEd, Brigham Young U., 1960, 1965.
Rhodes, Ronald L. (1962) BS, Elmhurst Coll., 1957; MS, Brigham Young U., 1962; PhD, Oregon State U., 1971.
Robison, Clarence F. (1948) BS, Brigham Young U., 1949; MS, U. of Michigan, 1954.
Rollins, L. McKay (1962) BS, MS, Brigham Young U., 1961, 1962; PhD, U. of Utah, 1971.
Salazar, Richard D. (1963) BS, MS, Brigham Young U., 1958, 1962; PhD, Southern Illinois U., Carbondale, 1972.
Tuckett, Glen C. (1959) BS, U. of Utah, 1953; MS, EdD, Brigham Young U., 1962, 1975.

Hebrew

See Asian and Near Eastern Languages.

Hindi

See Center for Language Studies.

History

Neil L. York, Chair
315 KMB, (801) 422-3485

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of History are open enrollment. However, special limitations apply for teaching majors.

The Discipline

History stands at the heart of a liberal arts bridge between the humanities and social sciences. Historical understanding is thus basic to the life of an educated human being. As such, it is the ideal major for the student who wants the broad educational background for entrance into professions such as law, government service, or business, or who wants a liberal arts education. History can also be valuable training for someone who plans to teach.

Career Opportunities

In recognition of the broad range of uses to which historical education can be put, the field of public history has emerged in recent years. Today people whom others would consider bankers, lawyers, corporate executives; or public servants view themselves as historians—public historians. They are the people with analytical skills provided by their historical education who work outside the university but who consider themselves historians by virtue of the value of the training they have received. A significant percentage of the jobs listed by firms and agencies with BYU's Employment Office specify no major. Many of these will be taken by public historians anxious to serve their employers with the valuable skills learned in their history major.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Family History–Genealogy
BA	History
BA	History Teaching
Minors	Family History–Genealogy
	History
	History Teaching
	Native American Studies
Cert	Family History–Genealogy

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA History

For more information see the BYU 2003–2004 Graduate Catalog.

BA Family History–Genealogy (45 hours*)

Major Requirements

1. Complete one course from the following:
   Hist 220, 221.
2. Complete the following:
   Hist 200, 400, 433, 480, 485, 490.
   RelC 261.
3. Complete one course from the following:
   Hist 420, 421, 422, 423, 424, 425.
4. Complete one course from the following:
   RelC 262, 263, 264, 265, 266, 267, 268, 269.
5. Complete the following:
   Hist 482, 496R.
6. Complete one course from the following:
   Hist 251, 320, 321, 357, 377, 378, 384, 386.
7. Complete one course from the following:
   Hist 252, 306, 322, 323, 324, 325, 328, 329, 330, 332, 353, 356.
8. Complete two courses from the following:
   Hist 401, 402, 403, 404, 405, 406R, 408R, 409R, 410R, 411R, 412, 413, 414, 415, 416.

Note: It is recommended that students focus on one geographical area.

Recommended Courses

Hist 201, 202.

*Hours include courses that may fulfill GE or university requirements.

Minor Family History–Genealogy (24 hours*)

Minor Requirements

1. Complete the following:
   RelC 261.
2. Complete one course from the following:
   RelC 262, 263, 264, 265, 266, 267, 268, 269.
3. Complete the following:
   Hist 200, 400.
4. Complete one course from the following:
   Hist 420, 421, 422, 423, 424, 425.
5. Complete 6 hours from the following:
   Hist 401, 402, 403, 404, 405, 406R, 408R, 409R, 410R, 411R, 412, 413, 414, 415, 416.
6. Complete one course from the following:
   Hist 251, 319, 322, 325, 332, 364, 365, 370, 378.
7. Complete one course from the following:
   Hist 480, 482, 496R.

*Hours include courses that may fulfill university requirements.

Certificate Family History–Genealogy (18 hours)

The certificate will state the student's geographic area of concentration.

Certificate Requirements

1. Complete the following:
   Hist 400.
2. Complete one course from the following:
   Hist 420, 421, 422, 423, 424, 425.
3. Complete 6 hours from the following:
   Hist 401, 402, 403, 404, 405, 406, 408R, 409R, 410R, 411R, 412, 413, 414, 415, 416.
4. Complete 6 hours from the following:
   Hist 480, 481R, 482, 496R, or a general history course in the geographic area of specialization.

Note: The certificate program can help prepare for certification or accreditation but should not be confused with these two separate, private methods of qualifying professional genealogists.

BA History (39 hours*)

Major Requirements

1. At least 27 hours of major credit must be completed within the History Department at BYU.
2. Complete the following:
   Hist 200, 201, 202, 220, 221, 490.
3. After consulting with an advisor, complete 21 elective hours in history from the approved list. Students may study various areas of history, but they must not present all their preparation in a single area. At least one class must be chosen from three of the following areas: Asia or the Near East, Europe, Latin America, the United States, or Africa.

   Note: Only 6 hours of R credit from directed readings and/or research courses will count toward fulfilling the elective requirement.

Recommended Courses

1. Supporting courses:
   Phil 105.
   Econ 110.
2. GE courses:
   a. Arts and Letters:
      ArtHC 111, 112.
      ClCv 110.
      Engl 230.
      Hum 101.
      Hum 240.
      Phil 205.
   b. Natural Sciences:
      Biol 150.
      Geog 101.

*Hours include courses that may fulfill GE or university requirements.

BA History Teaching (61–62 hours*, including licensure hours)

Major Requirements

1. A teaching minor is not required for licensure. However, it is strongly recommended.
2. Complete the following:
   Hist 200, 201, 202, 220, 221, 364, 477, 490.
3. Complete 12 elective history hours from an approved list (at least one class must be chosen from two of the three following areas: Asia or the Near East, Europe, or Latin America.
4. Complete the Professional Education Component (25–26 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

Minor History (21 hours*)

Minor Requirements

1. At least 12 hours of minor credit must be completed within the History Department at BYU.
2. Complete the following:
   Hist 200, 201, 202, 220, 221.
3. Complete 6 hours from approved history elective courses.

*Hours include courses that may fulfill GE or university requirements.

Minor History Teaching (21 hours*)

Minor Requirements

1. No D credit is allowed in minor courses.
2. Complete the following:
   Hist 200, 201, 202, 220, 221, 364.
3. Complete 3 hours from approved history elective courses.

*Hours include courses that may fulfill GE or university requirements.

History (Hist)

Undergraduate Courses

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

200. The Historian's Craft. (3:3:0)
History within the broader framework of liberal education; nature of history; questions historians ask; skills and resources needed to study, understand, and write history. Required of all history majors.

201. World Civilization to 1500. (3:3:0) Honors and Independent Study also.
World civilization from Greek antiquity to Renaissance; explores fundamental questions in the human experience, examines formative events in history, and seeks to teach value of important texts.

202. World Civilization from 1500. (3:3:0) Honors and Independent Study also. Prerequisite: Hist 201.
World civilization from Renaissance to present; explores fundamental questions in the human experience, examines formative events in history, and seeks to teach value of important texts.

207. Introduction to Native America. (3:3:0)
Modular course surveying historical and contemporary Indian America: history, culture, language, literature, art, music, education, and current problems.

208. Introduction to Native American Education. (3:3:0) Prerequisite: Hist 207.
Difficulties of language and culture; awareness of government title programs.

220. The United States Through 1877. (3:3:0) Independent Study also.
Discovery, colonization, American Revolution, establishment of the Constitution, foreign affairs, westward expansion, slavery, sectionalism, Civil War, and reconstruction.

221. The United States Since 1877. (3:3:0) Independent Study also.
Industrialization, immigration, urbanization, political and social movements, and foreign policy.

230. Asian Civilization to 1500. (3:3:0)
Major Asian civilizations from antiquity to 1500.

231. Asian Civilization Since 1500. (3:3:0)
Major developments in Asian history since 1500.

238. Ancient Near East to 330 B.C. (3:3:0) F
Ancient cultures of the Near East (Egypt, Mesopotamia, Syro-Palestine, Anatolia, Iran) from the beginnings of civilization to the conquests of Alexander the Great.

239. Ancient Near East, 330 B.C. to 640 A.D. (3:3:0) W
Cultures and empires of the Near East (Persia, Hellenistic kingdoms, Judaism, early Christianity, Rome, and Byzantium) from Alexander the Great to the Arab conquests.

240. Middle East History to 1800. (3:3:0) F
History of the Middle East from the rise of Islam until 1800.

241. Middle East History from 1800. (3:3:0) W
History of the Middle East in the modern period from 1800; rise of nation states, relationship with West, role of Islam.

242. (Hist-NES 347) Arab and Islamic Civilization. (2:2:1)
Social science/humanities core course covering Arab and Islamic civilization; historical evolution of Middle East to present. Overview of modern Palestinian society. Offered at Jerusalem Center for Near Eastern Studies; elective credit for major and minor in Near Eastern Studies. Does not receive GE credit.

243. (Hist-NES 349) Jewish Civilization. (2:2:1)
Social science/humanities core course; broad introduction to Jewish self-understanding and history, focusing on relationships among people, faith, and land. Offered at Jerusalem Center for Near Eastern Studies. Does not receive GE credit.

244 Jewish History: A.D. 70 to the Present. (3:3:0)
Jewish diaspora, Jewish life in Moslem and Christian countries; Jewish religious movements; development of Zionism; Jewish communities in modern Israel and the United States.

246. Mediterranean History. (3:3:0)
Political, commercial, and cultural history of the lands bordering the Mediterranean and their common ties to the sea, emphasizing the medieval period as the precursor to Atlantic expansion.

247. (Hist-ClCv 304) Greek History. (3:3:0)
Political, economic, social, and intellectual history of Greece from Mycenaean times to the Hellenistic period.

248. (Hist-ClCv 307) Roman History. (3:3:0)
Political, economic, social, and intellectual history of Rome from the foundation of the city to Constantine.

249. African Civilizations to 1800. (3:3:0)
Society, culture, and kingdoms of Black Africa before European rule; art, architecture, kings and courts, status of women.

250. Modern Africa: 1800 to the Present. (3:3:0)
Rise of traditional kingdoms, impact of Christianity and Islam, European partition of Africa, colonial rule, nationalist movement, problems of independence, foreign policy, and intellectual life.

251. Conquest and Colonization of Latin America. (3:3:0)
Pre-Columbian civilizations, Iberian exploration and conquest of the New World, and colonial development of Hispanic and Portuguese America from 1492 to 1823.

252. Modern Latin America. (3:3:0)
National period (1810 to present): independence, institutional development, culture, and inter-American relations.

300. The Early Middle Ages. (3:3:0)
Decline of Rome and the early formative stages of early medieval civilization; analysis of political, economic, and social changes from A.D. 285 to 950.

301. The Late Middle Ages. (3:3:0)
Europe from 950 to 1350; maturation of medieval civilization; failure of German, success of French leadership; economic, religious, cultural, intellectual trends.

302. The Italian Renaissance. (3:3:0)
Major political, social, and cultural events in Italy from 1200 to 1530, emphasizing concept of the Renaissance in modern historiography.

303. The Reformation: Age of Turmoil. (3:3:0)
Sixteenth-century religious upheaval; ideological, cultural, political, and socioeconomic struggles to mid–seventeenth century.

304. The Expansion of Europe, 1400–1800. (3:3:0)
Early voyages of discovery and the actions of Europeans in the wider world from about 1400 to 1800.

305. The Age of Enlightenment. (3:3:0)
Developments in Europe from 1650 to the French Revolution, emphasizing political thought, science, and philosophy in the Enlightenment.

306. Nineteenth-Century Europe. (3:3:0) Independent Study also.
Political, economic, social, and intellectual history of Europe from 1815 to 1914.

307. Europe Since 1914. (3:3:0)
International affairs and political and economic history of major European countries (including Russia) from World War I to the present.

310. European Economic History. (3:3:0)
Economic development of Europe from antiquity to the early twentieth century; impact of the economy on social and political institutions.

311. (Hist-Phil 423–Phscs 314) History and Philosophy of Science. (3:3:0) Prerequisite: PhyS 100 or instructor's consent.
Scientific explanation, concepts, and models. Philosophical assumptions and criteria for theory selection, as exemplified by historical development of basic ideas in science.

312. History of Ideas. (3:3:0)
Interrelationship of influential ideas and historical events from the end of the eighteenth century to the present.

314. European Fascisms, 1914 to Present. (3:3:0)
Political, cultural, and social bases of fascist movements, especially in Italy, Germany, and Spain. Rise to power, family policies, warfare, propaganda, racism, genocide, neofascisms.

315. European Jews and the Holocaust. (3:3:0)
Attempted genocide of European Jews by Hitler's Third Reich; motives, methods, and implications.

316. History on Film. (3:2:Arr.) Prerequisite: Hist 201 or 202, preferably both. Recommended: upper-level courses in medieval and early modern European history.
Effectiveness of film as a medium of history, emphasizing works on European history; its strengths and weaknesses compared to traditional approaches.

319. The Family in Europe. (3:3:0) Independent Study also.
Nature and development of marriage and family life and structure from the ancient to modern era.

320. Society in Europe. (3:3:0)
Common life in Europe from 1500 to the present: family problems, social customs, marriage, superstition, death, diet, work, hardships, migration, and childhood.

321. The City in European History. (3:3:0)
Historical experience of the European city from antiquity to the early twentieth century. Topics include urban formation and development, society, economy, and culture of the city.

322. English History to 1689. (3:3:0) Independent Study also.
Political, social, and cultural developments from prehistoric times to the Glorious Revolution. Medieval, Tudor, and Stuart periods.

323. English History Since 1689. (3:3:0)
Emergence of Britain as a great colonial and industrial power, as well as more recent decline of Britain's influence. Emphasis also on cultural developments.

324. France. (3:3:0)
French history from Roman times to the present, emphasizing the French Revolution, Napoleon, and subsequent developments.

325. Spain. (3:3:0)
Political, social, and economic factors in Spanish history from Roman times to present. Emphasis on Reconquest, Golden Age, and Civil War.

326. History of Italy. (3:3:0)
History and culture of the Italian peninsula from classical to modern times, emphasizing evolution of the idea of Italy as a political and cultural entity.

327. Italy in the Modern World Since 1848. (3:3:0)
Political, social, economic, and cultural history of Italians and the Italian peninsula in Europe and the world, including nationalism, church and state, migration, Mafia, fascism, and European union.

328. Modern Germany. (3:3:0)
Political, military, economic, and cultural development of Germany during the nineteenth and twentieth centuries.

329. Austrian Empire. (3:3:0)
Historical survey (1526–1918) of area ruled by Hapsburg dynasty comprising lands and people of East-Central Europe.

330. Tsarist Russia. (3:3:0)
Major social, political, and economic developments of Russia from the founding of the Kievan state to the 1905 Revolution.

331. Twentieth-Century Russia. (3:3:0)
Fise and fall of the Soviet Union and recent attempts to refashion the Russian economy and government.

332. Scandinavian History. (3:3:0)
Political, social, religious, cultural, and economic factors in Denmark, Finland, Iceland, Norway, and Sweden from Viking era to present highly developed society.

335. Crusades. (3:3:0)
Age of Holy Wars in the eastern Mediterranean and Near East, 1050–1300. Focus on both Europe and Near East.

336. Central Eurasia. (3:3:0)
History of area between China, Iran, and Europe, from ancient Scythians and Huns to medieval Turks and Mongols to formation of modern Russian and Chinese frontiers.

339R. Topics in Modern Near Eastern History. (3:3:0 ea.)
Closer examination of the history of appropriate delimited topic than possible in general survey course. Topics may include modern Islamic movements, modern Egypt, or modern North Africa.

340. Traditional China. (3:3:0)
From a loose federation of Neolithic societies, Chinese civilization emerges as East Asia's dominant political and cultural force; developments to ca. 1500.

341. Modern China Since 1500. (3:3:0)
Economic and political foundations of modernity during high Imperial China; challenge of new order from the West; rise of Chinese nationalism, revolution, and development.

342. Twentieth-Century China. (3:3:0)
China's twentieth-century struggles to find a working modernity via revolution: anti-imperial, nationalist, communist, and capitalist.

343. Traditional Japan. (3:3:0)
Political, social, religious, and cultural developments to ca. 1700.

344. Modern Japan. (3:3:0)
Main themes in Japanese history from Tokugawa times to the present.

345. Japanese Cultural History. (3:3:0)
Cultural and artistic developments in Japanese history, including architecture, gardening, ceramics, woodblock prints, religious iconography.

346. Korea. (3:3:0)
Political, religious, and cultural development from antiquity to the present.

350. Modern South Asia. (3:3:0)
Major developments in greater India since the coming of the British: colonialism, economic development, nationalism, independence.

351. Modern Southeast Asia. (3:3:0)
Complex history of the varied nations of this vast area: religion, colonialism, nationalism, independence.

352. History of Asian Religions and Thought. (3:3:0)
Major themes in religion, philosophy, and ideas in Asia.

353. Mexico and the Caribbean. (3:3:0)
Social and economic trends, emphasizing colonialism, Mexican Revolution, and Castro movement.

355. History of Argentina. (3:3:0)
Rise of modern Argentina from colonial times, focusing on the dynamic political, economic, social, and cultural developments since independence.

356. Brazil. (3:3:0)
From 1500 to present, emphasizing relationship between colonial patterns and twentieth-century reality and dilatory transformation of Brazil's political and economic culture.

357. The Indian in Latin American History. (3:3:0)
History of Latin American Indians from preconquest days to the present; achievements, contributions, and problems.

359. Inter-American Relations. (3:3:0)
Decline of Europe's American empires, legacies bequeathed to the new republics by their European heritage, and how those legacies have affected relations among the various American republics.

360. American West to 1900. (3:3:0)
The American West as a place of great diversity. Topics include Native American societies, European colonization, explorations, the fur trade, overland migrations, Indian relations, mining, settlement, and the environment.

361. The American West Since 1900. (3:3:0)
Pivotal developments in the twentieth-century West, including urbanization, Sun Belt migration, political protest, labor history, Native American history, immigration, water policy, tourism, military-industrial complex, Hollywood.

362. Race, Class, and Gender in the American West. (3:3:0)
Contributions of women, different social and class distinctions, and various historical and contemporary experiences of Mexican, African, Asian, and native Americans in the American West.

363. The Borderlands: The Spanish Frontier in North America. (3:3:0)
Spanish exploration, occupation, and institutions of northern Mexico, the American Southwest, and Florida, 1521–1821; Mexican period to 1848.

364. Utah. (3:3:0)
Contributions of Native Americans, explorers, mountain men, miners, government officials, Mormons, and other groups in the nineteenth century. Impact of national movements, various peoples, politics, economics, and social and cultural change in the twentieth century.

365. American South. (3:3:0)
Political, economic, and cultural history of the southern states from colonial times to the present.

366. San Francisco: Time, Place, and Ethos. (3:3:0)
San Francisco as a microcosm of the American experience: art, architecture, environmentalism, politics, and ethnic diversity.

370. Colonial America. (3:3:0)
Establishment, growth, and development of the American colonies to 1763.

371. Revolutionary America. (3:3:0)
Causes and consequences of the American Revolution, the confederation era, and the framing of the Constitution.

372. U.S. History from 1815 to 1848. (3:3:0)
Maturation of the early republic to the Civil War era including the market revolution, Jacksonian politics, sectionalism, territorial expansion, religion, and reform.

373. Civil War Era, 1848–1877. (3:3:0)
Causes of the war, major military events (leaders, campaigns, soldiers), war on the home fronts, why the South lost, Reconstruction, the legacy of the war.

374. U.S. History from 1890 to 1945. (3:3:0) Prerequisite: Hist 220, 221.
Political, economic, and social movements and ideas that trace rise of U.S. as a world power in first half of twentieth century.

375. World War II: A Global Perspective, 1939–1945. (3:3:0)
Causes, flow, and consequences of World War II emphasizing the American experience at home and abroad.

376. U.S. History from 1945 to 2000. (3:3:0)
Movements and ideas that shaped society, politics, economy, and diplomacy of the United States from 1945 to 2000.

377. American Social History. (3:3:0)
Methods and issues of social history; emphasizing gender, social class, race, and ethnicity.

378. American Family History. (3:3:0)
History of American families from colonial period to the present.

379. Life and Thought in America. (3:3:0)
Movements in social and political thought; major leaders and their times from 1607 to the present.

380. Popular Culture in America. (3:3:0)
Life and culture in America; the American character and its relationship to popular cultural themes.

381. U.S. Religious History. (3:3:0)
Religious developments in America from colonial times to the present.

382. Mormonism in the American Experience. (3:3:0)
Social, economic, political, intellectual, and religious environment in which Mormonism flourished; contributions of Mormon men and women to American culture and history.

384. United States Women's History. (3:3:0)
Survey course of women's experience in American culture and society from the Puritans to the present.

385. Latinos in the United States. (3:3:0)
The place of Latin Americans within the context of U.S. history. The growth and development of the largest Latino communities from pre-colonial times to present day and how Latinos may influence future policies within the U.S.

386. North American Indian History to 1900. (3:3:0)
History of various Indian tribes, their cultures, and their relationships with European nations and the United States, including military campaigns.

387. North American Indian History Since 1900. (3:3:0)
Sociocultural factors that affect twentieth-century native Americans in both urban and reservation settings, including current challenges facing Indian communities.

388. Indians in Colonial America. (3:3:0)
North American Indian culture, Indian/European interactions, demographic, social, political factors among Indians prior to contact with Europeans through colonization and the American Revolutionary War.

389. Federal Indian Policy. (3:3:0)
History and development of interrelationship of the federal government and the Native American in the United States.

390R. Special Topics in History. (1–3:3:0 ea.) Independent Study also.
Presented by visiting or regular faculty. Varied topics include oral history, demographics, psychohistory, Christianity in history, etc.

392. U.S. Constitutional History. (3:3:0)
Constitutional traditions and constitution making, federalism, and constitutional notions of political equity and social justice, from the colonial period to the present.

393. U.S. Foreign Relations. (3:3:0)
American diplomacy; trends and critical decisions of the twentieth century.

394. U.S. Environmental History. (3:3:0)
American people's experience living in and changing the physical environment from pre-Columbian times to present: ideas, land use, technology, urbanization, industry, water, air, etc.

395. Technology in America. (3:3:0)
Benefits and liabilities of technological complexity.

398R. Special Topics in Military History. (3:3:0 ea.)
Varied topics in world military history and war.

400. The Family and the Law in American History. (3:3:0)
The interaction of families with law and government as illustrated in original American sources; individual family histories reconstructed in the broader perspective of history.

401. U.S.–New England Family History Research. (3:3:0)
In-depth examination of sources and problem solving in New England research.

402. U.S.–Eastern States Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Eastern states research.

403. U.S.-Midwest Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Midwestern states research.

404. U.S.–Southern States Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Southern states research.

405. U.S.–Native American Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Native American research.

406R. Canadian Family History Research. (3:3:0 ea.)
In-depth examination of sources and problem solving in Canadian research.

408R. Scandinavian Family History. (3:3:0 ea.)
In-depth examination of sources and problem solving in Scandinavia.

409R. Germanic Family History Research. (3:3:0 ea.)
In-depth examination of sources and problem solving in various Germanic-speaking countries.

410R. Southern European Family History. (3:3:0 ea.)
Records, geo-historical background, paleography, and methods for reconstruction of individual families; development of demographic and family history studies in Portugal, Spain, France, and Italy.

411R. Latin American Family History Research. (3:3:0 ea.)
Records, geo-historical background, paleography, and methods for reconstruction of individual families; development of demographic and family history studies in Latin America and Spanish United States.

412. England/Wales Before 1700 Family History Research. (3:3:0)
In-depth examination of sources and problem solving in England and Wales before 1700.

413. England/Wales Since 1700 Family History Research. (3:3:0)
In-depth examination of sources and problem solving in England and Wales since 1700.

414. Scottish Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Scotland.

415. Irish Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Ireland.

416. Slavic Family History Research. (3:3:0)
In-depth examination of sources and problem solving in various Slavic-speaking countries.

420. Latin Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in Latin ecclesiastical and notarial documents useful in family history research, including parish or church registers, notarial settlements of states, probate records and inventories; medieval to modern periods.

421. England Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in vernacular scripts in the British Isles, sixteenth through eighteenth centuries, in family history sources.

422. Germanic Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in vernacular scripts in the German kingdoms, sixteenth through eighteenth centuries, in family history sources.

423. Slavic Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in vernacular scripts in the Slavic language areas of Eastern Europe, sixteenth through eighteenth centuries, in family history sources.

424. Romance Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in vernacular scripts in the Romance languages of Europe (especially Spanish, French, and Italian), sixteenth through eighteenth centuries, in family history sources.

425. Scandinavian Language Handwriting and Documents. (3:3:0)
Interpretation of old Gothic script handwriting in Scandinavian areas of Europe (including Denmark, Norway, Sweden, Finland, and Iceland), sixteenth through eighteenth centuries, in family history sources.

430R. (Hist-Clscs) Topics in Greek and Roman History. (3:3:0 ea.) Prerequisite: ClCv-Hist 304 and Greek 201 (Greek topics) or ClCv-Hist 307 and Latin 201 (Roman topics).
Topics vary (e.g., rise of the Greek city-state, Greek political thought, classical historiography, Rome and the Etruscans, imperial Rome).

431. Public History. (3:3:0)
How historical studies influence life outside the academy. Role of history discipline in museums, film, government, business, and historic preservation.

432. Oral History Interviewing and Processing. (3:3:0) Independent Study also.
Oral methods of research and writing history; focus on family histories. Techniques of interviewing; transcribing and processing interviews. Creating historical documents.

433. Writing Family Histories. (3:3:0) Independent Study also.
Selecting themes and sources, and determining issues to be dealt with.

434. Computers in Family History/History Research and Publication. (3:3:0)
Use of computer programs, CD collections, World Wide Web (www) sites and links, helpful hints in researching history or family history; including programs and techniques for publishing family histories.

477. Methods of Teaching. (3:3:0) For history teaching majors. Prerequisite: ScEd 276R.
Effective methods of teaching history in secondary schools; historical content taught at the secondary school level.

480. Seminar on Professional Family History Research. (3:3:0) Independent Study also.
Practicum in professional client research, report writing, family history publishing, bookkeeping procedures, and running a family history business.

481R. Directed Research in Family History. (1–3:0:0 ea.)
Student research directed by faculty member on family history topic of mutual interest.

482. Professional Paths and Credentials in Family History. (3:3:0)
Directed research and instruction for completing the application/test for professional accreditation or certification in family history.

485. Junior Tutorial in History. (3:3:0) Prerequisite: Hist 200.
Reading, discussing, and writing about selected historical issues.

487. Philosophies of History. (3:3:0)
Fundamental problems and types of historical analysis and interpretation, philosophies of history, and work of outstanding historians.

490. Historical Research and Writing. (3:3:0) Prerequisite: Hist 200, 485.
Research seminar; critical, analytical, and writing skills in preparation of a historical essay. Required of all history majors.

495R. Directed Research. (3:0:0 ea.) Prerequisite: instructor's consent.
Student research directed by faculty member on topic of mutual interest. Research assistants must do additional work for credit.

496R. Academic Internship: Family History. (1–5:0:0 ea.)
Work with Department of History on various projects, under supervision of professional.

497R. Honors Readings. (1–3:0:Arr. ea.)

498R. Directed Readings. (1–3:3:Arr. ea.) Independent Study also.

499R. Honor's Thesis. (1–6:0:0 ea.)

500-Level Graduate Courses (available to advanced undergraduates)

500R. Special Studies in History. (1–3:3:0 ea.)
Directed by visiting or resident faculty. Check with department secretary for current topics and instructor.

561. Sources and Problems in Early America. (3:3:0)
Through the seventeenth and eighteenth centuries.

562. Sources and Problems in Nineteenth-Century America. (3:3:0)
Through the nineteenth century

563. Sources and Problems in Twentieth-Century America. (3:3:0)
Through the twentieth century.

564. Sources and Problems in Western U.S. History. (3:3:0)
Lecture, discussion, readings, and student writing on historians' sources and points of view regarding the American West.

565. Sources and Problems in Latter-day Saint History. (3:3:0)
Lecture, discussion, readings, and student writing on historians' sources and points of view regarding Latter-day Saint history.

566. Sources and Problems in Utah History. (3:3:0)
Lecture, discussion, readings, and student writing on historians' sources and points of view regarding Utah history.

587. Philosophies of History. (3:3:0)
Fundamental problems and types of historical analysis and interpretation, philosophies of history, and work of outstanding historians.

590R. Special Topics. (3:3:0 ea.)
Western American, religious, family, Asian, Latin American, and Near Eastern history.

598R. Special Readings in History. (1–2:0:Arr. ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Native American Studies

Many American Indian and non-Indian students graduating from Brigham Young University in studies such as education, sociology, business, and political science will be brought into contact with the Native American people because of the nature of their occupations.

The Native American Studies minor is designed to supplement students of various disciplines so that they may become more culturally aware of the heritage of the American Indian, thus promoting better understanding and cooperation.

The minor has been designed so that students may select classes from a variety of interdepartmental courses, if desiring a general background, or a combination of classes for an in-depth study in a specific discipline.

In connection with the American Studies program offered at Brigham Young University, students can obtain a major in American Studies, with course work designed to emphasize the Native American.

Make application to or obtain further information from the History Department.

Minor Native American Studies (24 hours)

Minor Requirements

1. Complete the following core courses:
   Engl 358R.
   Hist 207.
2. Complete 9 hours from the following:
   Hist 208, 386, 387, 388.
3. Complete 9 hours from the following:
   Anthr 317, 350, 530, 535.
   Engl 358R (Native American topics only).
   FLang 102R (Navajo)**.
   Hist 360, 361, 362, 363, 389, 405, 485**, 498R**.
   Hum 425R.
   Soc 113, 323, 390R**.
   RelC 269.

   **Requires approval by NAS coordinator.

Native American Studies (NAS)

Undergraduate Courses

111. American Indian Art Appreciation. (2:2:0)
History and appreciation of functional and aesthetic aspects of Native American art forms, prehistoric to present.

369R. Special Topics. (1–3:3:0 ea.) Prerequisite: department's consent.

History Faculty

Professors

Alexander, Thomas G. (1964) AS, Weber Coll., 1955; BS, MS, Utah State U., 1960, 1961; PhD, U. of California, Berkeley, 1965.

Brown, Kendall W. (1991) BA, Brigham Young U., 1973; MA, PhD, Duke U., 1975, 1979.

Fox, Frank W. (1971) BA, MA, U. of Utah, 1966, 1969; PhD, Stanford U., 1973.

Green, Arnold H. (1985) BA, California State U., Los Angeles, 1965; MA, Brigham Young U., 1967; PhD, U. of California, Los Angeles, 1973.

Harline, Craig E. (1992) BA, Brigham Young U., 1980; MA, PhD, Rutgers, 1984, 1986.

Pixton, Paul B. (1974) BA, MA, U. of Utah, 1965, 1967; PhD, U. of Iowa, 1972.

Thorp, Malcolm Ray (1969) BS, MA, Brigham Young U., 1964, 1967; PhD, U. of Wisconsin, Madison, 1972.

Underwood, Grant (2000) BA, MA, Brigham Young U., 1977, 1981; PhD, U. of California, Los Angeles, 1988.

Walker, Ronald W. (1980) BS, MA, Brigham Young U., 1961, 1965; MS, Stanford U., 1968; PhD, U. of Utah, 1977.

York, Neil Longley (1977) BA, MA, Brigham Young U., 1973, 1975; PhD, U. of California, Santa Barbara, 1978.

Associate Professors

Bohac, Rodney D. (1983) BA, U. of Nebraska (1974); MA, PhD, U. of Illinois, 1975, 1982.

Cannon, Brian Q. (1992) BA, Brigham Young U., 1984; MA, Utah State U., 1986; PhD, U. of Wisconsin, 1992.
Daynes, Kathryn (1994) BA, DePaul U., 1973; MA, PhD, Indiana U., 1975, 1991.
Garcia, Ignacio (1995) BA, Texas A&I U., 1976; MA, PhD, U. of Arizona, 1989, 1995.
Grandstaff, Mark R. (1993) BS, Embry-Riddle Aeronautical U., 1980, MA, Brigham Young U., 1984; PhD, U. of Wisconsin, Madison, 1992.
Hamblin, William J. (1990) BA, Brigham Young U., 1978; MA, PhD, U. of Michigan, 1981, 1985.
Hartley, William G. (1980) BA, MA, Brigham Young U., 1966, 1969.
Haslam, Gerald M. (1991) BA, MA, U. of Utah, 1972, 1974; PhD, Brigham Young U., 1981.
Holmes, Blair R. (1971) BA, Brigham Young U., 1966; MA, PhD, U. of Colorado, 1968, 1972.
Richards, Mary Stovall (1983) BA, Brigham Young U., 1973; AM, PhD, U. of Chicago, 1976, 1983.
Rugh, Susan Sessions (1997) BA, Brigham Young U., 1974; MA, PhD, U. of Chicago, 1986, 1993.
Ryskamp, George R. (1993) BA, JD, Brigham Young U., 1974, 1979.

Assistant Professors
Buckley, Jay H. (2001) BA, MA, Brigham Young U., 1994, 1996; PhD, U. of Nebraska, 2001.
Butler, Lee A. (1994) BA, Brigham Young U., 1983; PhD, Princeton U., 1991.
Choate, Mark I. (2001) BA, MA, MPhil, PhD, Yale U., 1995, 1996, 1998, 2002.
Dursteler, Eric R. (1998) BA, MA, Brigham Young U., 1988, 1992; PhD, Brown U., 1999.
Farmer, J. Michael (2002) BA, U. of Texas, Austin, 1992; MA, MA, PhD, U. of Wisconsin, Madison, 1994, 1996, 2001.
Harreld, Donald J. (2001) BA, BA, MA, PhD, U. of Minnesota, 1983, 1993, 1996, 2000.
Kerry, Paul E. (1999) BA, Brigham Young U., 1989; MA, U. of Chicago, 1995; DPhil, Oxford, England, 1998.
Kimball, Richard I. (2002) BA, Brigham Young U., 1993; MA, PhD, Purdue U., 1995, 1999.
Miller, Shawn W. (1997) BA, Brigham Young U., 1990; MA, PhD, Columbia U., 1992, 1996.
Murdock, Michael G. (1998) BA, MA, Brigham Young U., 1988, 1990; MA, PhD, U. of Michigan, 1994, 1998.
Pulsipher, Jenny Hale (1998) BA, MA, Brigham Young U., 1985, 1989; PhD, Brandeis U., 1999.
Shumway, Jeffrey M. (1999) BA, Brigham Young U.—Hawaii, 1992; MA, Brigham Young U., 1994; PhD, U. of Arizona, 1999.
Westover, V. Robert (1971) BA, MA, PhD, Arizona State U., 1965, 1968, 1979.
White, Kenneth R. (2002) BA, U. of Utah, 1980; MA, PhD, U. of Wisconsin, Madison, 1986, 1998.

Emeriti
Addy, George M. (1957) BA, MA, Brigham Young U., 1948, 1950; PhD, Duke U., 1957.
Allen, James B. (1963) BS, Utah State U., 1954; MA, Brigham Young U., 1956; PhD, U. of Southern California, 1963.
Britsch, R. Lanier (1966) BA, MA, Brigham Young U., 1963, 1964; PhD, Claremont Graduate U., 1967.
Cardon, Louis B. (1960) BA, U. of Arizona, 1950; MA, PhD, U. of California, Berkeley, 1957, 1965.
Fox, William (1966) BS, MA, EdD, Brigham Young U., 1962, 1966, 1983.
Gowans, Frederick R. (1972) BS, MS, PhD, Brigham Young U., 1960, 1963, 1972.
Hill, Marvin S. (1966) BA, MA, Brigham Young U., 1955, 1955; PhD, U. of Chicago, 1968.
Hyer, Paul V. (1957) BA, Brigham Young U., 1951; MA, PhD, U. of California, Berkeley, 1953, 1960.
Jagchid, Sechin (1972) BA, PhD, Peking U., China, 1937, 1939.
Jensen, De Lamar (1957) BA, Brigham Young U., 1952; MA, PhD, Columbia U., 1953, 1957.
Johansson, Carl-Erik (1969) BA, MS, Brigham Young U., 1967, 1973.
Marlow, H. Carleton (1964) BS, MS, Brigham Young U., 1958, 1959; PhD, U. of Oklahoma, 1966.
Montgomery, David C. (1970) BA, Brigham Young U., 1961; MA, PhD, Indiana U., Bloomington, 1966, 1971.
Pratt, David H. (1966) BA, MA, Brigham Young U., 1963, 1969; PhD, U. of Nebraska, Lincoln, 1975.
Tobler, Douglas F. (1967) BA, MA, Brigham Young U., 1961, 1962; PhD, U. of Kansas, 1967.
Warner, Ted J. (1962) BS, MS, Brigham Young U., 1955, 1958; PhD, U. of New Mexico, 1963.
Wood, Joseph S. (1967) BS, PhD, U. of Utah, 1939, 1967.

The following persons in other departments have also been granted academic rank by the Department of History:

Baker, Legrand (Lee Library) Assistant Professor
Embry, Jessie (Charles Redd Center) Associate Research Professor
Hall, John F., III (Humanities, Classics, and Comparative Literature) Professor
Huntsman, Eric D. (Humanities, Classics, and Comparative Literature) Assistant Professor
Peek, Cecilia M. (Humanities, Classics, and Comparative Literature) Assistant Professor
Whittaker, David J. (Lee Library) Associate Professor

Charles Redd Center for Western Studies

Brian Q. Cannon, Director
5443 HBLL, (801) 422-4048

Activities of the Center

Established in January 1972 under an endowment from Charles and Annaley Neagle Redd, prominent Utah stock owners and philanthropists, the Charles Redd Center for Western Studies is charged with promoting the study of all aspects of the Intermountain West (Utah, Arizona, New Mexico, Nevada, Idaho, Colorado, Wyoming, and Montana). Programs of the center include conducting research; funding faculty, student, and independent research through grants and assistantships; providing financial assistance to public programs, professional organizations, and presses; offering consultation; sponsoring lectures; and assisting school children through the Utah History Fair. Center personnel teach classes in academic departments on campus and administer the American Western Studies minor offered through the American Studies program.

Chair Holder: Lemuel Hardison Redd, Jr., Professor of Western American History.
Alexander, Thomas G. (1964) AS, Weber Coll., 1955; BS, MS, Utah State U., 1960, 1961; PhD, U. of California, Berkeley, 1965.

Associate Professor
Cannon, Brian Q. (1992) BA, Brigham Young U., 1984; MA, Utah State U., 1986; PhD, U. of Wisconsin, 1992.

Instructor, Assistant Director, Oral History Program Director
Embry, Jessie L. (1979) BA, MA, Brigham Young U., 1973, 1974.

Emeritus
Allen, James B. (1963) BS, Utah State U., 1954; MA, Brigham Young U., 1956; PhD, U. of Southern California, 1963.

Advisory Council
Alexander, Thomas G., History, BYU
Allen, James B., Emeritus History, BYU
Bogart, Barbara Allen, Folklore, Evanston, Wyoming
Butler, John E., Ithaca, New York
Cornwall, Marie, Sociology, BYU
Gardner, John Hale, Emeritus Physics and Astronomy, BYU
Holzapfel, Richard N., Church History and Doctrine, BYU
Jackson, Richard H., Geography, BYU
Magleby, David B., Political Science, BYU

Olsen, Steve, LDS Museum of Church History and Art, Salt Lake City
Peterson, Joe, Division of Arts, Letters, and Sciences, Dixie College
Redd, Robert, Provo, Utah
Sillito, John, Stewart Library, Weber State University
Swenson, Sharon L., Theatre and Media Arts, BYU
William A. Wilson, Emeritus Humanities, BYU

Home Economics

See Family Life and Home Economics in the School of Family Life section of this catalog.

Humanities, Classics, and Comparative Literature

Roger T. Macfarlane, Chair
3010-A JKHB, (801) 422-4448

College of Humanities Advisement Center
3078 JKHB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Humanities, Classics, and Comparative Literature are open enrollment. However, special limitations apply for teaching majors.

General Information

The Department of Humanities, Classics, and Comparative Literature strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

Humanities

BA Humanities
Emphases:
- Art History
- Classical Studies
- Comparative Literature
- English
- Foreign Literature
- History
- Media Arts (Film)
- Music
- Philosophy

BA Humanities–English Composite Teaching
BA Humanities–French Composite Teaching
BA Humanities–German Composite Teaching
BA Humanities–History Composite Teaching
BA Humanities–Japanese Composite Teaching
BA Humanities–Latin Composite Teaching
BA Humanities–Spanish Composite Teaching
Minor Humanities

Classics

BA Classical Studies
Emphases:
- Classical Civilization
- Classics
- Greek
- Latin

BA Latin Teaching
Minors Classical Studies
Latin Teaching

Comparative Literature

BA Comparative Literature

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Comparative Literature
MA Humanities

For more information see the BYU 2003–2004 Graduate Catalog.

Humanities

The Discipline

The term *humanities* refers to the study of human intellectual and artistic creativity and the record of human experience as seen in the arts. It is an interdisciplinary major drawing from history, fine arts, literature, intellectual history, music, foreign languages, etc. In this major the student focuses on the arts as modes of human expression and how the arts combine to give a unique view of what it has meant to be human through the ages—and how they continue to influence us today. Besides teaching the interrelatedness of the arts, the study of humanities emphasizes the relationships between the arts and other aspects of human culture and society.

The major offers students unusual latitude in developing a broad and full program in the liberal arts, as well as developing skills in reasoning, language, writing, and library use—all essential elements for later independent learning as well as for functioning well in society.

Career Opportunities

The interdisciplinary nature of the major makes it an excellent preparation for graduate work in humanistic disciplines and professional schools and also for a wide range of employment, including secondary teaching. Humanities graduates going directly into the work force commonly find professional employment in education, business, government, tourism, and civil or foreign service. Those going on to graduate school usually work toward the doctorate or attend professional programs in such disciplines as library science, law, business, public administration, and medicine.

BA Humanities (56–86 hours*)

With faculty advisor approval, students will select one of nine emphases: art history, classical studies, comparative literature, English, foreign literature, history, media arts (film), music, or philosophy.

Major Requirements

1. When possible, honors sections are recommended.
2. Complete the following:
   Hum 250.
3. Complete the following historical foundation courses:
   a. Hum 201 *and* 202.
   b. ClCv 110 *or* 241.
   c. Hum 240 *or* 242.
   d. And two courses from the following:
      Hum 260, 261, 262.
4. Complete one course from the following:
   Phil 110, 213, 214.
5. Complete an upper-division foreign language course (315 or higher) beyond the GE requirement. Majors are strongly encouraged to take a literature course in which works are read in the foreign language. Conversation courses, ASL, and music courses do not meet this requirement. The requirement may be met with European, Asian, or Middle-Eastern languages that have a written literary tradition and that are a language of scholarship. French, German, Italian, Russian, Spanish, Chinese, and Japanese are especially recommended, as are classical Greek and Latin.
6. Complete the following:
   Hum 350 (prerequisite: Engl 311 or Phil 311; Hum 201, 202, 250; and at least three of the remaining historical foundation courses [item 3 above]).
7. Complete a core of 12 hours or more (more if music) in an area of emphasis from the following: classical studies, comparative literature, English, history, art history, foreign literature, philosophy, media arts (film), or music (n.b. philosophy or foreign literature courses taken to meet requirement 6 above may *not* count toward emphases in those disciplines). Students wishing to pursue graduate work in their emphasis area are strongly encouraged to devote their supporting course work (see requirement 9 below) as well to their emphasis. Faculty advisors must approve the student's emphasis area. Courses toward the emphasis area are to be selected from the approved course list available from the advisement center. Exceptions must be cleared by the humanities section head. At least 6 of the 12 hours must be in upper-division courses.

8. Complete two capstone courses from the following:
   Hum 420R, 425R, 430R, 440R, 460R, 490R. (Prerequisite: Hum 250, 350; all historical foundations courses.)
9. Supporting course work: an 8–9 hour block of course work that supports the student's education and career goals. The block of courses must be coherent and must be approved in writing by the student's faculty advisor. The following are possibilities:
   a. Students wishing to provide greater focus to their interdisciplinary work—especially those wishing to pursue graduate work in interdisciplinary humanities or in a particular humanistic discipline—should devote this block of course work to a particular specialty (e.g., a period or area of concentration) or further work in their emphasis area.
   b. Students wishing to combine a humanities major with preparation for *professional schools* (e.g., MBA programs) that may require specialized background or quantitative skills beyond those already received may use this block of course work to acquire and strengthen those areas (e.g., CS 142, Acc 200, etc.).
   c. Any university minor will qualify.

*Hours include courses that may fulfill GE or university requirements.

BA Humanities Composite Teaching (79–107 hours*, including licensure hours)

With faculty advisor approval, students will select one of the following composite majors: English, history, or foreign language in either French, German, Japanese, Latin, or Spanish.

Major Requirements

1. When possible, honors sections are recommended.
2. Complete the following:
   Hum 250.
3. Complete the following historical foundation courses:
   a. Hum 201 *and* 202.
   b. ClCv 110 *or* 241.
   c. Hum 240 *or* 242.
   d. And two courses from the following:
      Hum 260, 261, 262.
4. Complete one course from the following:
   Phil 110, 213, 214.
5. Complete an upper-division foreign language course (315 or higher) beyond the GE requirement. Majors are strongly encouraged to take a literature course in which works are read in the foreign language. Conversation courses, ASL, and music courses do not meet this requirement. The requirement may be met with European, Asian, or Middle-Eastern languages that have a written literary tradition and that are a language of scholarship. French, German, Italian, Russian, Spanish, Chinese, and Japanese are especially recommended, as are classical Greek and Latin.
6. Complete the following:
   Hum 350 (prerequisite: Engl 311 or Phil 311; Hum 201, 202, 250; and at least three of the remaining historical foundation courses [item 3 above]).
7. Complete an area of emphasis (18–27 hours depending on subject) in one of the following disciplines: English, French, German, history, Japanese, Latin, or Spanish. (Foreign literature courses may not double count for the emphasis and for requirement 6 above.) Faculty advisors must approve the student's emphasis area. Courses toward the emphasis area are to be selected from the approved course list available from the advisement center. Exceptions must be cleared by the humanities section head.
8. Complete two capstone courses from the following:
   Hum 420R, 425R, 430R, 440R, 460R, 490R. (Prerequisite: Hum 250, 350; all historical foundations courses.)
9. Complete the Professional Education Component (25–26 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

Minor Humanities (18 hours*)

Minor Requirements

1. Complete the following:
   Hum 201, 202, 250, 350.
2. Complete one course from the following:
   Hum 240, 242, 260, 261, 262.
3. Complete one course from the following:
   Hum 420R, 425R, 430R, 440R, 460R, 490R.
4. Complete the GE Advanced Languages requirement using the foreign language option (Please note that ASL does not meet this requirement for the humanities minor. For the rationale, see item 5 under humanities major.)

*Hours include courses that may fulfill GE or university requirements.

Humanities (Hum)

Undergraduate Courses

101. An Introduction to the Humanities. (3:3:0) Independent Study also.
Study of the arts emphasizing forms and relationships, the development of critical skills, and an awareness of traditional humanistic values.

201. Arts in Western Culture 1. (3:3:0) Honors also.
Western civilization from Greek antiquity to Renaissance from perspective of traditional humanistic values reflected in its arts and ideas. Examines fundamental questions about human experience, formative events in history, and value of important literary and artistic texts.

202. Arts in Western Culture 2. (3:3:0) Honors also.
Western civilization from Renaissance to present from perspective of traditional humanistic values reflected in its arts and ideas. Examines fundamental questions about human experience, formative events in history, and value of important literary and artistic texts.

240. Introduction to the Humanities of Asia. (3:3:0)
Major arts of Asian cultures in their historical, religious, and philosophical settings.

242. Introduction to the Humanities of the Islamic World. (3:3:0)
Major arts of Islamic cultures in their historical, religious, and philosophical settings.

250. Introduction to Interdisciplinary Humanities. (3:3:0)
Major literary, artistic, and musical forms and their use in the interdisciplinary study of aesthetics and cultural and intellectual history.

260. Humanities of Latin America. (3:3:0)
Achievements of Latin American culture regarding art, philosophy, literature, and music from the pre-Columbian era to the present.

261. Introduction to American Humanities 1: Colonial Era Through 1876. (3:3:0) Honors also.
Value systems reflected in the arts and ideas of the United States from the colonial era to 1876.

262. Introduction to American Humanities 2: 1877 to the Present. (3:3:0) Honors also.

Value systems reflected in the arts and ideas of the United States from 1877 to the present.

270R. European Humanities and the Arts. (1–6:Arr.:Arr. ea.) Only offered on Study Abroad programs.

290R. Special Studies in the Humanities. (1–3:0:0 ea.)

350. Interpretation of Literature and the Arts. (3:3:0) Prerequisite: Engl 311 or Phil 311; Hum 201, 202, 250; at least three of the remaining historical foundation courses (item 3 under major requirements).

Understanding and writing about literature and at least one of the other arts; critical theory. Should be taken junior year.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: 12 hours of historical foundation courses in humanities; humanities major or minor; Hum 350.

Combined study-work experience related to the humanities major (museums, government agencies, publishing firms, etc.).

420R. Studies in Periods and Movements. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.

Interdisciplinary study of literature, philosophy, and the arts of a particular period or movement. Problems of periodization. Topics vary.

425R. Area Studies in the Humanities. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.

Interdisciplinary study of literature, philosophy, and the arts of a particular geographical area. Topics include American, Latin American, and Asian humanities. Topics vary.

430R. Genres and Forms in the Humanities. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.

Interdisciplinary study of genres and forms. Topics include epic, tragedy, narrative, historiography, film, relationship of text and music. Topics vary.

440R. Themes in the Humanities. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.

Interdisciplinary study of themes. Topics include Eden, Arthur, Don Juan, Faust, Ulysses, Troy. Topics vary.

460R. Critical Theory and Methodology. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.

Theoretical and practical criticism; problems in critical theory. Topics include aesthetics, interrelations of the arts, models of cultural history, cultural theory, and aspects of contemporary theory. Topics vary.

490R. Seminar in the Humanities. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.

Interdisciplinary study of problems and major figures in the humanities. Topics vary.

495R. Directed Readings. (1–3:0:0 ea.) Prerequisite: contract and instructor's consent.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.)

Graduate Courses

For 500- and 600-level courses, see the BYU 2003–2004 Graduate Catalog.

Classics

The Discipline

Classical Studies examine ancient Greek and Roman cultures—their languages, literature, history, religion, art, and philosophy.

The major offers essential knowledge of philology, ancient history, archaeology, biblical studies, and the literary tradition of Western Europe, as well as traditional grounding in the Classics. Students acquire important foreign-language study skills that include careful reading, thoughtful writing, and persuasive speaking. Latin is the mother language not only of Italian, French, and Spanish, but in a real sense of English as well. Its study will especially enhance one's understanding of English vocabulary, grammar, and rhetorical structure.

Greek and Roman History. Classics has the responsibility for staffing and administering offerings in Greek and Roman history. Courses in these fields are offered under Classical Civilization, Classics, Greek, and Latin. Some of these courses are cross-listed with history, and several may count toward a history major. See the History section of this catalog for details.

Classical Civilization. Classical Civilization courses presuppose no knowledge of the Greek or Latin languages and are open to all students. They are especially recommended for those who want to understand the ancient traditions underlying modern culture.

Career Opportunities

Majors in Classical Studies find employment in a variety of fields, including business, education, library science, tourism, and civil and foreign service. They are also excellent candidates for graduate work in other humanities-related disciplines and professional schools (law, business, and medicine).

BA Classical Studies: Classical Civilization Emphasis (43 hours*)

Emphasizes Classical Civilization, with work in either Greek or Latin.

Major Requirements

1. Complete one course from the following:
   ClCv 110, 201.
2. Complete the following:
   ClCv 241, 304, 307, 361, 362.
   Clscs 420.
3. Complete one of the following options:
   a. Greek 201, 301, 302.
   b. Latin 201, 301, 302.
4. Complete 3 hours from the following in the same language as above:
   Greek 411R, 430, 431, 433, 434, 435, 436, 437, 490R.
   Latin 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 479, 490R.
5. Complete three courses from the following:
   ClCv 245, 246, 261, 310, 340R, 355.
   Clscs 430R, 490R.

*Hours include courses that may fulfill GE or university requirements.

BA Classical Studies: Classics Emphasis (50 hours*)

Emphasizes Greek and Latin literature and language, with some work in Classical Civilization.

Major Requirements

1. Complete one course from the following:
   ClCv 110, 201, 241.
2. Complete the following:
   ClCv 304, 307.
   Clscs 420.
   Greek 201, 301, 302.
   Latin 201, 301, 302.
3. Complete one course from the following:
   ClCv 361, 362.

4. Complete one course from the following:
   Greek 321.
   Latin 321.
5. Complete four additional courses (two Greek, two Latin) from the following:
   Clscs 430R, 490R, or any 400-level course in Greek or Latin.

*Hours include courses that may fulfill GE or university requirements.

BA Classical Studies: Greek Emphasis (38 hours*)

Emphasizes Greek language and literature, with some work in Greek civilization.

Major Requirements

1. Complete one course from the following:
   ClCv 110, 201, 241.
2. Complete the following:
   ClCv 304, 361.
   Clscs 420.
   Greek 201, 301, 302, 321.
3. Complete 12 hours from the following:
   Clscs 430R, 490R.
   Greek 311, 411R, 430, 431, 433, 434, 435, 436, 437, 490R.

*Hours include courses that may fulfill GE or university requirements.

BA Classical Studies: Latin Emphasis (42 hours*)

Emphasizes Latin language and literature, with some work in Roman civilization.

Major Requirements

1. Complete one course from the following:
   ClCv 110, 201, 241.
2. Complete the following:
   ClCv 307, 362.
   Clscs 420.
   Latin 111, 201, 301, 302, 321.
3. Complete 12 hours from the following:
   Clscs 430R, 490R.
   Latin 311, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 479, 490R.

*Hours include courses that may fulfill GE or university requirements.

BA Latin Teaching (81–87 hours*, including licensure hours)

Major Requirements

1. No D credit is allowed in major courses.
2. An approved teaching minor is required (approximately 16–21 hours).
3. Complete the following:
   Latin 201, 301, 302, 321, 377.
   ClCv 307, 362.
   Clscs 420.
4. Complete one course from the following;
   ClCv 110, 201, 241.
5. Complete 12 hours from the following:
   Clscs 430R, 490R.
   Latin 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 479, 490R.
6. Complete the Professional Education Component (25–26 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

Minor Classical Studies (Classical Civilization option) (21 hours)

Minor Requirements

1. Complete 15 hours of course work in Classical Civilization.
2. Complete 6 additional hours in Classical Civilization or in Latin and Greek beyond the 100-level.

Minor Classical Studies (Classics option) (25 hours)

Minor Requirements

1. Complete 19 hours of course work in Latin or Greek beyond the 100-level.
2. Complete 6 hours of course work in Latin, Greek, or Classical Civilization.

Minor Classical Studies (Greek option) (22 hours)

Minor Requirements

1. Complete 16 hours of course work in Greek beyond Greek 102.
2. Complete 6 hours of course work in Greek, Classical Civilization, or Classics.

Minor Classical Studies (Latin option) (22 hours)

Minor Requirements

1. Complete 16 hours of course work in Latin beyond Latin 102 and 111.
2. Complete 6 hours of course work in Latin, Classical Civilization, or Classics.

Minor Latin Teaching (22 hours*)

Minor Requirements

1. Complete the following:
   Latin 201, 301, 302, 321, 377.
2. Complete 6 hours from the following:
   Latin 430, 431, 433, 434, 435, 436, 437, 438, 439, 440, 441, 490R.

   Note: One course from ClCv 246, 307, 340R, 362, or Clscs 430R may be substituted.

*Hours include courses that may fulfill GE or university requirements.

Classical Civilization (ClCv)

Undergraduate Courses

110. Introduction to Greek and Roman Literature. (3:3:0) Honors also.
Homer's *Iliad*, Sophocles' *Oedipus the King*, Vergil's *Aeneid*, and other important works of the Greeks and Romans. All readings in English.

201. The Classical Tradition 1: Antiquity to the Renaissance. (3:3:0) Honors also.
Civilization from Greek and Roman antiquity to the Italian Renaissance, emphasizing Greco-Roman culture—its institutions, literature, arts, and ideas.

202. The Classical Tradition 2: Reformation to Modern. (3:3:0) Honors also.
Civilization from the Reformation to the twentieth century, emphasizing the heritage of Greco-Roman culture—its institutions, literature, arts, and ideas.

241. Greek and Roman Mythology. (3:3:0) Honors also.
Greek and Roman gods, heroes, and myths, emphasizing literature but also giving attention to representations in the visual arts.

245. Golden Age of Greece. (3:3:0)
History of Civilization, culture, and daily life of Greece as indicated through its literature, art, history, and archaeology. All readings in English.

246. Golden Age of Rome. (3:3:0)
History of Civilization, culture, and daily life of Rome as indicated through its literature, art, history, and archaeology. All readings in English.

261. Greek and Roman Civilization and Literature in Film. (3:3:0)
Literature and civilization of ancient Greece and Rome as depicted in modern film with attendant problems of accuracy and historicity.

304. (ClCv-Hist) Greek History. (3:3:0)
Political, economic, social, and intellectual history of Greece from Mycenaean times to the Hellenistic period.

307. (ClCv-Hist) Roman History. (3:3:0)
Political, economic, social, and intellectual history of Rome from the foundation of the city to Constantine.

310. Classical Archaeology. (3:3:0)
Major excavations and antiquities of the Mediterranean region illustrating Greco-Roman history.

340R. Topics in Classical Literature and Civilization. (3:3:0 ea.)
Classical literary genres; rhetorical, philosophical, and historical writings; relationships of art and literature; or the classical tradition in the Middle Ages and Renaissance. Topics vary.

355. (ClCv-Engl) Greek and Roman Classics and the English Tradition. (3:3:0)
Major works by such authors as Homer, the Greek and Roman tragedians, Thucydides, Vergil, and Petronius in English translation, emphasizing their influence on English and American literature.

361. Survey of Greek Literature. (3:3:0)
Development and interrelation of literary genres of ancient Greece, e.g., epic and lyric poetry, tragedy, history, philosophy, etc. Texts read in English.

362. Survey of Latin Literature. (3:3:0)
Development and interrelation of the literary genres of ancient Rome, e.g., comedy, poetry, history, oratory, etc. Texts read in English.

Classical Greek (Greek)

Undergraduate Courses

101. First-Year Greek (First Semester). (4:4:0)

102. First-Year Greek (Second Semester). (4:4:0)

201. Intermediate Greek. (4:4:0) Prerequisite: Greek 102.
Readings from Xenophon with review and continuation of grammar.

211. Intermediate Greek New Testament. (3:3:0) Prerequisite: Greek 101 or equivalent.
Readings from the Greek New Testament.

301. Classical Greek Poetry: Homer's *Iliad*. (3:3:0) Prerequisite: Greek 201.

302. Classical Greek Prose. (3:3:3) Prerequisite: Greek 201.

311. New Testament in Greek: Gospels. (3:3:0) Prerequisite: Greek 201.

321. Third-Year Grammar and Composition. (3:3:0) Prerequisite: Greek 302.
Exercises in composing Greek prose.

411R. Topics in New Testament Greek. (3:3:0 ea.) Prerequisite: Greek 201, 311.
Readings from the Gospels, Acts, the Pauline or general epistles, or the Apocalypse. Topics vary.

430. Herodotus. (3:3:0) Prerequisite: Greek 302.

431. Homer's *Odyssey*. (3:3:0) Prerequisite: Greek 301.

433. Thucydides. (3:3:0) Prerequisite: Greek 302.

434. Sophocles and Euripides. (3:3:0) Prerequisite: Greek 301.

435. Greek Lyric Poetry. (3:3:0) Prerequisite: Greek 301.

436. Plato. (3:3:0) Prerequisite: Greek 302.
Reading and analysis of Greek text of selected dialogues by Plato (e.g., *The Republic, Meno, Protagoras*).

437. Attic Orators. (3:3:0) Prerequisite: Greek 302.

490R. Topics in Greek Literature. (1–3:3:0 ea.)
Topics vary.

Classical Latin (Latin)

Undergraduate Courses

101. First-Year Latin (First Semester). (4:4:0)

102. First-Year Latin (Second Semester). (4:4:0) Prerequisite: Latin 101 or two years of high school Latin.

111. Beginning Latin Accelerated. (5:5:0) Honors also.
Equivalent of combined Latin 101, 102. Prepares students for Latin 201.

121. Latin for Genealogists. (3:3:0) Independent Study also.

122. Prelegal Latin. (2:2:0)
Recommended for prelaw and current law students (usually taught in the evening).

123. Premedical Latin and Greek. (2:2:0)
For premedical and predental students and students in the physical and natural sciences (usually taught in the evening).

201. Intermediate Latin. (4:4:0) Prerequisite: Latin 102, 111, or three years of high school Latin.
Readings from Caesar, with a review and continuation of grammar.

301. Classical Latin Poetry. (3:3:0) Prerequisite: Latin 201.
Selections from Vergil's *Aeneid* and Ovid's *Metamorphoses*.

302. Classical Latin Prose. (3:3:0) Prerequisite: Latin 201.
Readings in Cicero's Catilinarian orations and Sallust's *Catiline*.

311. Latin Vulgate. (3:3:0) Prerequisite: Latin 201.
Readings from Jerome's Latin Bible (Vulgate).

321. Third-Year Grammar and Composition. (3:3:0) Prerequisite: Latin 302 or concurrent enrollment.

377. Secondary Teaching Procedures. (3:3:1) Prerequisite: ScEd 276R; Latin 321 or equivalent.
Skills mastery, hearing, speaking, reading, writing, and identification of teacher-pupil activities required for conceptual learning. Lectures, demonstrations, and application of linguistic techniques to practical classroom requirements.

430. Livy. (3:3:0) Prerequisite: Latin 302.
Selections from Livy's *Ab Urbe Condita.*

431. Vergil. (3:3:0) Prerequisite: Latin 301.

432. Ovid. (3:3:0) Prerequisite: Latin 301.

433. Cicero. (3:3:0) Prerequisite: Latin 302.
Selections from the works of Cicero.

434. Plautus and Terence. (3:3:0) Prerequisite: Latin 301.

435. Catullus. (3:3:0) Prerequisite: Latin 301.

436. Tragedy and Epic of the Early Empire. (3:3:0) Prerequisite: Latin 301.
Selections from Seneca, Lucan, and the Flavian epic poets.

437. The Latin Epistle. (3:3:0) Prerequisite: Latin 302.
Letters of Cicero, Seneca, Pliny, and the later tradition.

438. Horace. (3:3:0) Prerequisite: Latin 301.

439. Tacitus. (3:3:0) Prerequisite: Latin 302.

440. Roman Satire. (3:3:0) Prerequisite: Latin 301.
Selections from Horace, Petronius, and Juvenal.

441. Medieval Latin. (3:3:0) Prerequisite: Latin 301, 302.
Study of particular periods (e.g., Carolingian renaissance, twelfth-century renaissance) or genres (e.g., historiography, epic, autobiography), or survey of medieval Latin.

479. Secondary Student Teaching. (1–8:1:40) Prerequisite: ScEd 276R; Latin 321, 377.

490R. Topics in Latin Literature. (1–3:3:0 ea.)
Topics vary.

Classics (Clscs)

Undergraduate Courses

420. Ancient Literary Criticism. (3:3:0) Prerequisite: Greek 302 or Latin 302.
Survey emphasizing both chief works of the tradition and their practical application to reading of Greek and Latin authors.

430R. (Clscs-Hist) Topics in Greek and Roman History. (3:3:0 ea.) Prerequisite: ClCv-Hist 304 and Greek 201 (Greek topics) or ClCv-Hist 307 and Latin 201 (Roman topics).
Topics vary (e.g., rise of the Greek city-state, Greek political thought, classical historiography, Rome and the Etruscans, imperial Rome).

490R. Seminar in Classics. (3:3:0 ea.) Prerequisite: Latin or Greek at 300-level as topic demands.
Combined topics in Greek and Latin (e.g., comparative epic poetry, classical tradition of criticism, Euripides and Seneca). Topics vary.

Comparative Literature

The Discipline

Comparative Literature is the study of literature in its totality. The Comparative Literature major not only acquaints students with literary study beyond the confines of any particular national tradition but also with the relationship between literature and other areas of knowledge. Combining the synthesizing skills and knowledge related to individual national literatures, the comparative literature major utilizes a wide range of linguistic and philosophical knowledge unique to an undergraduate program. Pursued as a major, the field offers students unusual latitude in developing a broad and full program in the liberal arts, as well as developing competence in reasoning, language, writing, and research—essential for later independent learning.

Career Opportunities

Comparative Literature majors are well prepared for graduate programs in languages and literature and for employment in the foreign service, library science, business, education, and tourism. In addition, comparative literature is an outstanding preprofessional major for those interested in law, public administration, management, and medicine.

BA Comparative Literature (37–57 hours*)

Major Requirements

1. Acquire a thorough knowledge of two language traditions relevant to individual program of study (one of these may be English for students who emphasize the Anglo-American literary tradition)(approximately 16–32 hours). Competence will normally be demonstrated in course work, but an examination may be required. If planning advanced work in comparative literature, students should gain reading knowledge of both an additional modern language and a classical language.
2. Complete a reading list (determined in consultation with a faculty advisor) and submit a writing portfolio. During the final semester enroll in CmLit 497 to complete a written examination on the reading list and to have the portfolio reviewed.
   CmLit 201 and 202 are strongly recommended, in part because the reading list core consists of texts treated in these courses. Students who do not complete a literature-based civilization sequence are at a disadvantage in working systematically through the list.
3. CmLit 310 and reading knowledge of at least one foreign language are prerequisite to all upper-division comparative literature courses.
4. Course configuration must be approved by department advisor.
5. Complete the following:
   CmLit 310, 342, 497.
6. Complete five courses from the following:
   CmLit 420R, 430R, 440R, 450R, 460R.
7. Complete one of the following options:
   Either complete a literature course in Greek or Latin
   Or complete one course from the following:
   ClCv 110, 241, 355.
8. The following courses deal with texts in the original language. These courses must be in addition to previous requirements. Although English courses may be taken, courses must be taken in at least one other language as well. Complete 12 hours from the following:
   Arab 461, 462, 531R.
   Chin 441, 442, 443, 444, 490R.
   Dansh 340.
   Dutch 340.
   Engl 333, 336, 337R, 341, 343, 355, 358R, 359, 361, 362, 363, 364, 365, 366, 371, 372, 373, 374, 375, 376, 380, 381, 382, 383, 384R, 385, 451, 452.
   Finn 340.
   Fren 451, 452R, 453R, 454R, 455R, 456R, 495R.

Germ 341, 342, 440R, 441R, 442R, 443R.
Greek 411R, 430, 431, 433, 434, 435, 436, 437.
Heb 431, 441, 442, 443, 444.
Iclnd 429.
Ital 441, 442, 443, 444, 460, 490R, 495R.
Japan 441, 444, 490R.
Korea 340, 443, 471, 490R.
Latin 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 490R.
Norwe 340.
Phil 414.
Port 441, 442, 449R, 451, 452, 453, 459R, 461R, 462R.
Russ 441, 442, 490R, 492R.
Span 438, 439R, 440, 441, 443R, 444, 446R, 448R, 449R, 450R, 451, 454R, 455R, 456R, 458R, 459R, 461.
Swed 340.

*Hours include courses that may fulfill GE or university requirements.

Comparative Literature (CmLit)

Undergraduate Courses

201. Civilization: Literature 1. (3:3:0) Honors also.
Major world civilizations from antiquity to early Italian Renaissance, emphasizing socioeconomic, political, intellectual, and aesthetic developments, with primary focus on literary texts.

202. Civilization: Literature 2. (3:3:0) Honors also.
Major world civilizations from Europe's High Renaissance to modern times, emphasizing socioeconomic, political, intellectual, and aesthetic developments, with primary focus on literary texts.

310. Introduction to Literary Analysis and Comparative Literature. (3:3:0) Prerequisite: reading knowledge of at least one foreign language.
Methods of literary analysis, emphasizing basic issues of comparative literature and prosody and other problems related to foreign language texts.

342. Asian Literary Traditions. (3:3:0)
Comparative analysis of Asian literary works spanning several traditions.

420R. Studies in Periods and Movements. (3:3:0 ea.) Prerequisite: CmLit 310 or Hum 350 or concurrent enrollment.
Topics vary.

430R. Studies in Literary Genres. (3:3:0 ea.) Prerequisite: CmLit 310 or concurrent enrollment.
Various genres (e.g., novel, epic, tragedy) and problems of genre. Topics vary.

440R. Studies in Themes and Types. (3:3:0 ea.) Prerequisite: CmLit 310 or concurrent enrollment.
Major literary themes (e.g., Faust, Don Juan, Ulysses, Arthur), types, motifs, and problems of literary typology. Topics vary.

450R. Studies in Literary Relations. (3:3:0 ea.) Prerequisite: CmLit 310 or concurrent enrollment.
Interrelations of national literatures and figures and of literature with other areas of knowledge (art, history, law, psychology, music, etc.). Topics vary.

460R. Studies in Literary Theory. (3:3:0 ea.) Prerequisite: CmLit 310 or concurrent enrollment.
Topics vary.

495R. Directed Readings. (1–3:0:0 ea.)

497. Reading List Examination. (1:1:0) Prerequisite: CmLit 310, 342, and three 400-level seminars.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.)

Graduate Courses

For 500- and 600-level courses, see the BYU 2003–2004 Graduate Catalog.

Humanities, Classics, and Comparative Literature Faculty

Professors
Call, Michael J. (1983) BA, MA, Brigham Young U., 1971, 1976; PhD, Stanford U., 1982.
Green, Jon D. (1970) BA, MA, Brigham Young U., 1966, 1968; PhD, Syracuse U., 1972.
Hall, John F. (1978) BA, Brigham Young U., 1975; MA, PhD, U. of Pennsylvania, 1978, 1984.
Lounsbury, Richard C. (1982) BA, U. of Calgary, Canada, 1970; MA, PhD, U. of Texas, Austin, 1972, 1979.
Peer, Larry H. (1975) BA, MA, Brigham Young U., 1963, 1965; PhD, U. of Maryland, College Park, 1969.
Shumway, Larry V. (1975) BA, Brigham Young U., 1960; MA, Seton Hall U., 1960; PhD, U. of Washington, 1974.
Sondrup, Steven P. (1973) BA, U. of Utah, 1968; MA, PhD, Harvard U., 1969, 1974.
Tate, George S. (1974) BA, MA, Brigham Young U., 1969, 1970; PhD, Cornell U., 1974.

Associate Professors
Benfell, V. Stanley (1993) BA, Brigham Young U., 1987; MA, PhD, New York U., 1990, 1994.
Butler, Terrell M. (1979) BA, Brigham Young U., 1969; MA, PhD, Cornell U., 1972, 1979.
DeBloois, Nanci (1994) BA, MA, MA, Brigham Young U., 1979, 1981, 1983; PhD, U. of Iowa, 1994.
Handley, George B. (1998) BA, Stanford U., 1989; MA, PhD, U. of California, Berkeley, 1991, 1995.
Macfarlane, Roger T. (1989) BA, Brigham Young U., 1985; MA, PhD, U. of Michigan, 1987, 1991.
Parry, Joseph D. (1993) BA, MA, Brigham Young U., 1985, 1987; PhD, U. of Utah, 1994.

Assistant Professors
Burns, Mark K. (2002) BA, MA, MA, Brigham Young U., 1987, 1991, 1995; PhD, Harvard U., 2003.
Christenson, Allen J. (1998) BS, Brigham Young U., 1980; DDS, U. of California, Los Angeles, 1984; MA, PhD, U. of Texas, Austin, 1996, 1998.
Duckwitz, Norbert H. O. (1969) BA, MA, Brigham Young U., 1969, 1972; AM, Harvard U., 1974; PhD, U. of Colorado, 1987.
Huntsman, Eric D. (1994) BA, Brigham Young U., 1990; MA, PhD, U. of Pennsylvania, 1992, 1997.
Peek, Cecilia M. (1996) BA, Brigham Young U., 1987; MA, PhD, U. of California, Berkeley, 1991, 2000.
Sederholm, Carl H. (2002) BA, U. of California, Los Angeles, 1996; PhD, U. of Utah, 2002.
Soper, Kerry D. (1999) BFA, Utah State U., 1992; MA, PhD, Emory U., 1994, 1998.
Sowell, Debra H. (2002) BA, Brigham Young U., 1975; MA, Tufts U., 1980; PhD, New York U., 1990.

Assistant Lecturers
Andersen, David L. (1985) BA, MA, Brigham Young U., 1977, 1979.
Fisher, Deborah S. (1989) BA, MA, Brigham Young U., 1975, 1985.
Macfarlane, Karen C. (1991) BA, MA, Brigham Young U., 1984, 1990.

Emeriti
Bassett, Arthur R. (1972) BS, MRL, Brigham Young U., 1960, 1966; PhD, Syracuse U., 1975.
Britsch, Todd A. (1966) BA, Brigham Young U., 1962; MA, PhD, Florida State U., 1965, 1966.
Davis, Norma (1978) BA, MA, Brigham Young U., 1972, 1975.
Marshall, Donald R. (1971) BA, MA, Brigham Young U., 1960, 1965; PhD, U. of Connecticut, 1971.

Phillips, R. Douglas (1966) BA, Brigham Young U., 1962; MA, PhD, U. of Illinois, 1964, 1972.

The following faculty members from other departments are also formally affiliated with the Comparative Literature program:
Cutler, Ed (English)
Hegstrom, Valerie (Spanish and Portuguese)
Lee, Daryl (French and Italian)
Miller, J. Scott (Asian and Near Eastern Languages)
Pratt, Dale J. (Spanish and Portuguese)

Hungarian

See Germanic and Slavic Languages.

Icelandic

See Center for Language Studies.

Indian Languages, American

See Center for Language Studies.

Information Systems

See School of Accountancy and Information Systems.

Information Technology

See School of Technology.

Instructional Psychology and Technology

Russell T. Osguthorpe, Chair
150 MCKB, (801) 422-5097

David O. McKay School of Education Advisement and Certification Office
120 MCKB, (801) 422-3426

Graduate Programs and Degrees

MS Instructional Psychology and Technology
PhD Instructional Psychology and Technology

For more information see the BYU 2003–2004 Graduate Catalog.

Instructional Psychology and Technology (IP&T)

Undergraduate Courses

The Department of Instructional Psychology and Technology does not offer a baccalaureate degree. However, undergraduate classes are offered as service courses to other departments in the School of Education. Some of these classes are cross-listed with other departments.

286. Instructional Technology in Teaching. (1–3:Arr.:Arr.) F, W, Sp, Su
Using instructional design, visual design, and differentiated staffing principles along with multimedia authoring systems, telecommunication, and other computer-based tools in the development of educational applications.

301. Educational Psychology. (2:2:0) F, W, Sp, Su
Basic principles of educational psychology applied to teaching, including learning theory, instructional strategies, assessment of learning outcomes, and classroom inquiry.

470R. Undergraduate Research Training. (1–3:Arr.:Arr. ea.) F, W
Introduction of undergraduate students to the concepts of research and evaluation through practical experience.

500-Level Graduate Courses (available to advanced undergraduates)

514R. Special Topics in Instructional Psychology. (1–3:Arr.:0 ea.) On dem.
—Technical Applications
—Effective Teaching
—Student Assessment

515R. Special Topics in Instructional Psychology and Technology. (1–3:Arr.:Arr. ea.) F, W, Sp, Su On dem.

550. Empirical Inquiry and Statistics. (6:6:0) F
Integration of empirical research and statistical analysis in evaluation. Designing, conducting, analyzing, reporting, and critically evaluating research studies.

560. Microcomputer Materials Production. (3:3:Arr.) W, Su
Prerequisite: IP&T 286 or 515R (Microcomputers in Schools).
Designing, programming, and debugging educational applications of microcomputers using a high-level computer language.

564. Instructional Design. (3:3:Arr.) F, Su
Identifying instructional problems; specifying objectives, instructional strategies, and media; analyzing learning outcomes; developing instructional materials and assessment instruments; validating instructional systems.

599R. Academic Internship. (1–6:0:18 ea.) F, W, Sp, Su
Prerequisite: departmental consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Instructional Psychology and Technology Faculty

Professors

Green, Edward E. (1972) BA, Brigham Young U., 1965; MS, EdD, Indiana U., Bloomington, 1970, 1972.
Merrill, Paul F. (1977) BS, Brigham Young U., 1967; PhD, U. of Texas, Austin, 1970.
Osguthorpe, Russell T. (1978) BS, MS, PhD, Brigham Young U., 1971, 1973, 1975.
Wood, Larry E. (1977) BS, Brigham Young U., 1967; MA, PhD, U. of Iowa, 1970, 1971.

Associate Professors

Campbell, J. Olin (1999) BA, Yale U., 1967; MDiv, Union Theological Seminary, 1972; PhD, Stanford U., 1978.
Inouye, Dillon K. (1978) BS, Brigham Young U., 1973; PhD, Stanford, U., 1978.
Sudweeks, Richard R. (1980) BS, MA, Brigham Young U., 1965, 1973; PhD, U. of Illinois, 1978.
Williams, David D. (1980) BS, Brigham Young U., 1976; MA, Western Michigan U., 1978; PhD, U. of Colorado, 1981.

Assistant Professors

Allen, Stephanie (2003) BA, MA, Brigham Young U., 1993, 1996; PhD, Utah State U., 2003.
Graham, Charles R. (2002) BS, Brigham Young U., 1994; MS, U. of Illinois, 1997; PhD, Indiana U., 2002.
Yanchar, Steven (2001) BS, Cleveland State U., 1991; MS, PhD, Brigham Young U., 1995, 1997.

Adjunct Faculty

Conrad A. Gottfredson, Ronald Edward Guymon, Scott Howell, Trav Johnson, Richard Dwight Laws, James B. Olsen, Gregory Waddoups, William Tracy Watson

Emeriti

Black, Harvey B. (1970) BA, MA, Brigham Young U., 1950, 1954; PhD, Indiana U., Bloomington, 1962.
Brown, J. Richard (1956) BS, MEd, Brigham Young U., 1949, 1956.
Bunderson, C. Victor (1991) BS, U. of Utah, 1961; PhD, Princeton U., 1965.
Card, Willard R. (1967) BS, U. of Utah, 1957; MA, San Jose State Coll., 1964.
Harrison, Grant V. (1969) BA, Brigham Young U., 1963; MA, Adams State Coll. of Colorado, 1965; EdD, U. of California, Los Angeles, 1969.
Van Mondfrans, Adrian P. (1971) BS, MA, U. of Utah, 1963, 1964; PhD, U. of Wisconsin, Madison, 1967.

Integrative Biology

Larry St. Clair, Chair
401 WIDB, (801) 422-2582

College of Biology and Agriculture Advisement Center
380 WIDB, (801) 422-3042

Admission to Degree Program

Integrative biology, biology composite teaching, and wildlife and wildlands conservation are open enrollment programs. The bioinformatics program carries special enrollment limitations.

The Discipline

Programs in the Department of Integrative Biology focus on training students in the organismal and broader perspectives of the biological sciences. Fields include systematics of taxonomic groups, ecology, evolution, and applied management of natural resources, many of which rely on the application of molecular biology and genetics.

Career Opportunities

Integrative biology entails rigorous, broad training and synthetic reasoning, which prepare students for careers in a wide variety of professional fields ranging from technical work in research laboratories to field technicians for environmental research companies or government agencies. Majors may develop their interest in such diverse areas as environmental biology, evolutionary biology, aquatic biology, molecular biology, plant biology, or taxonomy. Students satisfy the requirements for graduate studies in the biological sciences or professional schools.

The bioinformatics major is for students with interests in both the computer and the biological sciences. The degree merges these interests in the areas of bioinformatics and computational biology, giving students the skills for graduate or professional (medical, dental, law) schools or immediate employment opportunities after completing the undergraduate program, especially with biotechnology companies.

The biology composite teaching program provides a solid foundation in courses that meet the National Science Teachers Association certification requirements for secondary education biology teaching. The program also prepares students for continuing their education in graduate school.

Wildlife and wildlands conservation is directed at managing wildland ecosystems—optimizing the function and services of natural ecosystems. Students are educated in wildland plants, animals, soils, and ecology, as well as wildlife and land management techniques. This focused approach not only qualifies students for four federal job series occupations but also prepares them to work for a wide array of government and private land-management and conservation agencies.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0

Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Bioinformatics
BS Biology Composite Teaching
BS Integrative Biology
BS Wildlife and Wildlands Conservation

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

This department offers MS and PhD degrees. See the graduate school Web site: *http://www.byu.edu/gradstudies*

BS Bioinformatics (61–62 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Program Objectives

Bioinformatics is an interdisciplinary program offering substantial training in both the biological sciences and the physical and mathematics sciences, with an emphasis on computer programming coupled with genetics and molecular biology. Students will acquire programming, databasing, and operating system skills plus a foundation in mathematics and statistics.

Major Requirements

1. Complete the following:
   Biol 240, 340, 420.
   InBio 265, 365, 370, 465.

   Note: Bioinformatics majors are allowed to substitute InBio 265, CS 142, and Math 113 for the Biol 240 prerequisites of Biol 120, 220.
2. Complete the following:
   Chem 105, 106.
   CS 142, 235, 236, 240.
   Math 112, 113, 214.
   Stat 441, 442.
3. Complete one course from the following:
   Chem 152, 351.
4. With approval of an advisor, complete 6 hours from upper-division electives in computer science, statistics, or integrative biology.

*Hours include courses that may fulfill GE or university requirements.

BS Biology Composite Teaching (98–101 hours*, including licensure hours)

Program Objectives

Students completing the bachelor's degree in biology composite teaching are prepared to:

1. Design lesson plans and laboratory experiences and give formal classroom instruction for middle-school and secondary school courses in biology and related topic areas. This includes leading field trips for outdoor nature exposure.
2. Teach (with specific-focus instruction in the program methods) courses in advanced placement biology and its related fields.
3. Help students appreciate the fragility of natural systems; teach principles for the preservation, management, and use of natural ecosystems; and teach how to critically evaluate competing demands on natural resources.
4. Help students discriminate between legitimate scientific knowledge and society's many quasi-scientific claims associated with earth's management, medical issues, etc.

Major Requirements

1. Complete the following biology core courses:
   Biol 120, 220, 240, 340, 350, 420, 421.

   Note: Biol 420, 421 must be taken at BYU.
2. Complete the following:
   Chem 105, 106, 107.
   Geol 101.
   InBio 131, 235, 341, 344, 370, 441, 470.
   Math 119.
   MMBio 221, 222.
   PDBio 220.
   Phscs 105, 106.
3. Complete one of the following options:
   Either PDBio 305
   Or PDBio 362, 363.
4. Complete one of the following options:
   Either Chem 152, 281
   Or Chem 351.
5. Complete the Professional Education Component (28–29 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

Recommended Courses

Geol 103, 111, 112.
InBio 230, 352, 431, 432, 433, 443, 445, 446, 447.
Math 119 (to fill the GE Advanced Languages requirement).
PAS 282, 283.

*Hours include courses that may fulfill GE or university requirements.

BS Integrative Biology (60–65 hours*)

The Discipline

The integrative biology degree provides students with current, practical knowledge of plants and animals, emphasizing whole organism biology in both ecological and evolutionary contexts. Broad, synthetic training, from molecular to community levels of organization, equips students to address critical issues and contemporary biological problems associated with the long-term preservation of earth's biodiversity. Elective flexibility allows students to emphasize the botanical or zoological fields, or create a combined program of study. Undergraduate research opportunities may include internships, museum collections curation, bioinventory and data-basing activities, applied molecular genetics, and field and laboratory research in ecology, conservation biology, or evolutionary biology.

Major Requirements

1. Complete the following:
   Biol 120, 220, 240, 340, 350, 420, 421.
   Chem 105, 106.
   InBio 230, 341.
2. Complete one course from the following:
   InBio 380.
   PAS 440.
   PDBio 305, 362.
3. Complete one course from the following:
   Chem 281, 351.
4. Complete one of the following options:
   Either Phscs 105, 106
   Or Phscs 121, 220.
5. Complete one of the following options:
   Either Math 119
   Or Math 112, 113.
6. Complete 16 hours of electives from the following:
   a. Taxonomy and systematics: complete 8 hours from the following:
      InBio 310, 431, 432, 433, 434, 441, 442, 443, 445, 446, 447, 510, 511, 512, 515, 541, 546.
   b. Ecology and evolution: complete 8 hours from the following:
      Biol 360.
      Chem 481.
      InBio 351, 352, 355, 356, 357, 370, 411, 416, 417, 419, 424, 450, 452, 453, 470, 520, 550, 551, 552, 553, 554, 556, 557, 558, 560, 580, 581.
      PAS 282, 283.
      Stat 221.
   c. Mentoring option: with approval of an advisor, complete up to 8 hours of the following, plus electives from the above two sets to total 16 hours.
      InBio 494R.

Recommended Courses for Career Options

Botany

Students seeking career and graduate school opportunities in botanical fields should build their electives on a foundation of basic plant biology courses. Coupled with the broad integrative biology core, the following courses provide students with the greatest diversity of options for postgraduate work or training in plant biology:

InBio 355, 356, 431, 432, 433, 434.
PAS 282, 283, 440.

Students completing InBio 310, 355, and 356 often find summer employment opportunities with government land agencies.

Federal Register Requirements

The federal register requirements for botany, ecology, and zoology can be met by choosing appropriate electives. Botany requires 24 semester hours in plant-related courses. Ecology requires 30 semester hours in basic and applied biology, including at least 9 semester hours in ecology and 12 hours in the physical and mathematical sciences. Zoology requires 20 semester hours in zoology and related animal sciences.

GIS Applications

Students interested in GIS applications should consider a minor in geographic information systems (20–23 hours). See the Geography Department for details.

Natural Resource Policy

Students seeking careers in natural resource policy should complete InBio 370, 417, and 450 and consider a minor in political science (21 hours). See the Political Science Department for details.

*Hours include courses that may fulfill GE or university requirements.

BS Plant Biology (60 hours)

Plant biology is an interdepartmental degree program administered by the Plant and Animal Sciences Department but including considerable participation by faculty in the Department of Integrative Biology. Encompassing the fields of agronomy, ecology, evolution, horticulture, and molecular/cellular biology and biochemistry, this degree program prepares students for graduate study in these areas or the health professions or for direct employment. See the Department of Plant and Animal Sciences for details.

BS Wildlife and Wildlands Conservation (65 hours*)

The Discipline

This degree program qualifies students for federal job series employment in wildlife biology, range conservation, zoology, and botany. It also prepares for graduate programs in renewable natural resources and for eventual professional affiliations with state wildlife agencies and a number of federal agencies, including the U.S. Forest Service, Bureau of Land Management, Fish and Wildlife Service, and Park Service. Graduates are well prepared to deal with complex issues involving wildlife and wildlands management and the overall conservation of natural resources.

Major Requirements

1. Complete the following:
   Biol 120, 220, 276, 350.
   NDFS 330.
   PAS 282, 283, 440.
2. Complete the following:
   InBio 115, 215, 225, 230, 310, 341, 355, 356, 357, 411, 416, 417, 419, 424, 446, 447, 450.

Recommended GE Courses

Chem 101, 152.
Engl 115, 316.

Econ 110 with Hist 220 or PlSc 110.
Math 110.
Stat 221.

Recommended Courses for Graduate School Track

Biol 240, 340 instead of Biol 276.
Chem 105, 106 and either Chem 152 or 351.
Phscs 105, 106; or equivalents.

Recommended Courses for Preprofessional Track

Chem 105, 106, 107, 351, 352, 353.
Phscs 105, 106, 107, 108.
PDBio 305 or 362 or InBio 380.

GIS Applications

Students interested in GIS applications should consider a minor in geographic information systems (20–23 hours). See the Geography Department for details.

*Hours include courses that may fulfill GE or university requirements.

Integrative Biology (InBio)

Undergraduate Courses

101. Principles of Biology Laboratory. (1:0:2) F, W Prerequisite: concurrent enrollment in Biol 100.
Required of all elementary education and early childhood education majors; enrollment limited to elementary education or early childhood education majors.

115. Introduction to Wildlife and Wildlands Conservation. (1:1:0) W
Help choosing individual professions and curricula.

131. Plant Diversity. (3:3:0) F, W Independent Study also. Recommended: Biol 100 or equivalent.
Comparative and evolutionary investigation of origin and development of principal groups of plants, algae, and fungi, with consideration of their ecology and economic use.

134. Appreciation of Nature. (3:2:2) F, W Prerequisite: basic biology course.
Identifying common plants and animals; techniques for teaching natural history. Field trips required.

215. Principles of Range Management. (3:3:0) W
Overview of rangeland resources and management principles, including rangeland classification, multiple use management, natural resource policy, and grazing management.

225. Principles of Wildlife Ecology and Management. (3:3:0) F Prerequisite: Biol 100.
Skillfully applying knowledge and ethics in preserving, enhancing, and regulating wildlife populations and habitats.

230. Plant Classification. (3:2:3) W Prerequisite: Biol 220 or equivalent.
General principles of taxonomy and classification, emphasizing family identification and use of keys to the temperate flora.

235. Field Botany. (3:3:6) F
Recognition, characteristics, and uses of common trees and shrubs.

265. (InBio-PAS) Genomics. (3:2:1) F Prerequisite: bioinformatics major status or Biol 120.
Introduction to genomics and genome projects (human, plant, bacterial, yeast, parasites). Introduction to genes and genomes; computational and statistical approaches for analyzing genomic data, including genome sequencing and annotation, gene expression and the transcriptome, proteomics and functional genomics, and genetic variation and SNPs.

270. Animal Restraint. (1:0:2) F, W
Restraint and first aid techniques for pet, laboratory, domestic, and wild animals.

310. Wildland Plant Identification and Ecology. (3:2:3) W
Identification, characteristics, phenology, distribution, site adaptation, forage value, and response to management of significant range and pasture plants.

341. Animal Diversity. (4:3:3) F, W Prerequisite: Biol 220 or instructor's consent.
Comparative organization and evolutionary significance of adaptive morphological, physiological, behavioral, reproductive, and ecological differences in vertebrates and invertebrates.

344. Natural History of the Vertebrates. (3:2:2) F Prerequisite: InBio 341.
Intensive study of selected vertebrate species stressing natural history and systematics. Designed to accommodate needs of biology teaching majors.

351. Ecology Laboratory. (1:0:3) F Prerequisite: Biol 350 or concurrent enrollment.
Introduction to major ecological concepts through field or laboratory exercises, emphasizing appropriate methods for measuring variation under field conditions. Field trips required.

352. Introduction to Marine Biology. (3:3:0) W Prerequisite: InBio 341.
Marine life, the sea as an environment, and research methods.

353. Field Biology. (4:2:7) On dem. Prerequisite: InBio 341.
Field investigations into the natural history of living organisms. Extended field trips required.

355. Vegetation and Wildlife Methods. (2:2:0) F even yr. Prerequisite: Stat 221; Engl 316.
Vegetation and wildlife inventory techniques.

356. Vegetation Measurement Laboratory. (1:0:3) F even yr. Prerequisite: Stat 221; Engl 316; InBio 355 or concurrent enrollment.
Vegetation measurements (density, dominance, frequency utilization, etc.) in wildland settings.

357. Wildlife Measurement Laboratory. (1:0:3) W odd yr. Prerequisite: Biol 350, InBio 355.
Measurement techniques for inventorying wildlife species and their habitats.

365. Computational Biology. (3:2:1) F even yr. Prerequisite: InBio 265 or PAS 265.
Computational analysis of DNA data; introduction to bioinformatics databasing using Pearl and SQL; configuration of UNIX workstations for bioinformatics analyses.

370. Bioethics. (2:1:3) F, W Prerequisite: introductory biology course.
In-depth lecture and small-group discussion of varied bioethical issues. LDS Church positions emphasized when appropriate.

380. Comparative Animal Physiology and Anatomy. (4:3:3) F Prerequisite: Biol 220 or instructor's consent. Recommended: InBio 341.
Structure and function of animal organ systems; structural and physiological responses to demands of and changes in environment; evolutionary constraints on anatomy and physiology.

398R. Biology Teaching Seminar. (1–2:0:0 ea.) F, W, Sp, Su
Students in an academic team assist instructor in design and/or implementation of a class.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) F, W, Sp, Su
On-the-job experience and education.

411. Watershed Management. (3:2:3) F even yr. Prerequisite: Biol 350.
Processes and management of the hydrologic cycle on forests and rangelands. Field trips required.

416. Wildland Vegetation Improvement. (3:2:3) F odd yr. Recommended: Biol 350, InBio 310.
Habitat improvement for domestic and wild animals. Plant control by mechanical equipment, herbicides, and prescribed fire. Restoration of disturbed lands. Field trips required.

417. Natural Resource Planning and Conflict Resolution. (3:2:3) F odd yr. Prerequisite: InBio 215, 225, 356, Biol 350.
Development of a multiple-use natural resource plan for watershed, forestry, recreation, wildlife, and livestock. Policies that govern planning and conflict resolution.

419. Forest Management and Ecology. (3:2:2) F even yr.
Managing forests, emphasizing ecosystem management. Field trips.

424. Wildlife Law Enforcement. (3:3:0) W Prerequisite: Biol 100 or equivalent.
Current and historical principles of federal and state wildlife law enforcement, case development, evidence, evaluation, human rights, and testimony.

431. Plant Anatomy. (2:3:3) W 1st blk. Prerequisite: Biol 220.
Structure and functional characteristics of vascular plants' cells, tissues, and organs.

432. Vascular Plant Morphology. (2:3:3) W 2nd blk. Prerequisite: Biol 220 or equivalent.
Functional morphology, homology, reproductive diversity, and evolutionary relationships of vascular plants.

433. Algae and Bryophytes. (2:3:3) F 2nd blk. even yr. Prerequisite: Biol 220.
Structures, life histories, and relationships of algae and bryophytes.

434. Fungi. (2:3:3) F 1st blk. even yr. Prerequisite: Biol 220.
Structures, life histories, and relationships of fungi.

441. Entomology. (3:2:3) F Prerequisite: InBio 341 or equivalent.
External morphology, natural history, evolution, distribution, and phylogeny of insects. Insect collection required.

442. Advanced Invertebrate Zoology. (5:6:0) F even yr. Prerequisite: InBio 341.
Functional morphology, cladistics, ecology, behavior and interrelationships of invertebrates.

443. Ichthyology. (3:2:3) F even yr. Prerequisite: InBio 341.
Fish systematics, evolution, morphology, distribution, and natural history.

445. Herpetology. (4:3:2) W even yr. Prerequisite: InBio 341.
Reptile and amphibian evolution, systematics, morphology, distribution, and natural history. Lab emphasizes taxonomy, classification, and distribution of western U.S. species.

446. Ornithology. (3:2:3) W Prerequisite: InBio 341.
Avian systematics, evolution, distribution, and natural history.

447. Mammalogy. (3:2:3) F Prerequisite: InBio 341.
Mammalian diversity, evolution, distribution, and natural history. Two three-day field trips required.

450. Conservation Biology. (3:3:0) F Prerequisite: Biol 220, 350, InBio 341.
Scientific principles of conservation: applying population genetics and phylogenetic and ecological theory to preservation of biological diversity; developing sustainable ecological systems compatible with human resource use.

452. Marine Ecology. (3:2:3) Sp Prerequisite: InBio 352 and instructor's consent.
Marine ecology of planktonic, sublittoral, rocky shore, sandy shore, and mudflat communities. Extensive field trips.

453. Development of Marine Animals. (2:0:6) Sp Prerequisite: InBio 352 and instructor's consent.
Culturing, studying, and reporting on the development of eggs, embryos, and larvae of marine animals.

465. Bioinformatics. (3:2:1) F odd yr. Prerequisite: InBio 365.
3-D protein structural comparisons, hidden Markov models for database comparisons, homology detection, multiple sequence analyses, and protein family comparisons. Exercises in computer programming in genomics.

470. History and Philosophy of Biology. (3:3:0) F, W Prerequisite: biology core courses through Biol 420.
Development of fundamental generalizations of biology; nature of science; applications to major philosophical issues of current science.

485R. Case Studies in Animal Biology. (2:1:3 ea.) Sp, Su Prerequisite: instructor's consent.
Topics vary.

494R. Mentored Research. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: supervisor's consent.
Independent student research under faculty supervision.

500-Level Graduate Courses (available to advanced undergraduates)

510. Advanced Plant Taxonomy. (3:2:3) F even yr. Prerequisite: InBio 230 or equivalent.
Review of taxonomic literature and research methods. One three-day field trip required.

511. Lichenology. (3:2:3) W odd yr.
Classification, morphology, and ecology of lichens. Field trip required.

512. Angiosperm Phylogeny. (3:2:2) F odd yr. Prerequisite: InBio 230 or equivalent.
Description, classification, phylogeny, and geographic distribution of flowering plant families.

515. Agrostology: Taxonomy and Ecology of Grasses. (3:2:3) W even yr. Prerequisite: InBio 230 or equivalent.
Classification and ecology of grasses, emphasizing important forage species.

520. Wildlife and Wetlands Ecology and Management. (1:1:0) W even yr. Prerequisite: Biol 100, 350, InBio 225, 230. Recommended: InBio 411, 557.
Characterization and interactions of wildlife and plant populations in typical wetlands; emphasizing ecological functions, maintaining biodiversity, and restoring degraded systems. Field trips required.

525. Animal Disease, Biosecurity, and Zoonoses. (3:3:0) W Prerequisite: InBio 380 or instructor's consent.
Animal disease, emphasizing prevention, organ systems affected, biosecurity, and zoonotic potential.

537. Aquatic Entomology. (4:2:4) F even yr. Recommended: InBio 441 or equivalent.
Morphology, classification, biology, and functional ecology of aquatic insects. Field trips required.

546. World Bird Families. (4:8:0) W 2nd blk. Prerequisite: InBio 446 or instructor's consent.
Distribution, composition, and characteristics of world bird families, using museum specimens.

550. Physiological and Chemical Ecology. (3:3:0) W odd yr. Prerequisite: Biol 350 or equivalent.
Ecophysiological response of plants to their environment.

551. Quantitative Ecology. (2:2:1) W odd yr. Prerequisite: Biol 350 or equivalent; concurrent enrollment in Stat 221 or 510.
Quantitative methods for ecological sampling and data analysis.

552. Terrestrial Ecosystems. (3:3:0) F even yr.
Theory and application of plant and animal distribution in terrestrial environments.

553. Restoration Ecology. (3:3:0) W odd yr. Recommended: PAS 282, InBio 350, 416; or equivalents.
Nature of ecosystem disturbance and plant succession; developing science and practice of ecological restoration; case studies of applied restoration.

554. Wildlife Behavioral Ecology. (3:3:0) W Prerequisite: Biol 100, 350; or equivalents.
Integrating principles of ethology, sociobiology, and behavioral ecology using examples from wildlife resources; behavioral sampling methods. Field trip required.

556. Limnology. (2:2:0) F even yr. Prerequisite: Biol 350, Chem 106; or equivalents.
Lakes and reservoirs; their biota and physical/chemical properties.

557. Stream and Wetland Ecology. (3:3:0) F odd yr. Prerequisite: Biol 350, Chem 106.
Stream and wetland ecology; their biota and their physical/chemical properties.

558. Aquatic Ecology Laboratory. (1:0:3) F Prerequisite: InBio 556 or 557 or concurrent registration.
Field experience in aquatic ecology, including shoreline processes, fluvial mechanics, and quantitative and qualitative assessment of lotic and lentic systems. Overnight field trips required.

559R. Advanced Topics in Ecology and Evolution. (1–6:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
Current topics in ecology, evolution, and systematics.

560. Population Genetics. (4:4:0) W odd yr. Prerequisite: Biol 420 or equivalent.
Basic principles of population genetics applied to natural populations; drift, selection, and nonrandom mating; inferring population subdivision, migration, and gene flow.

580. Scanning Electron Microscopy. (3:2:4) F Prerequisite: instructor's consent.
Theoretical and practical scanning electron microscopy of biological, physical science, and engineering samples, emphasizing practical applications.

581. Transmission Electron Microscopy. (3:2:4) F Prerequisite: instructor's consent.
Theoretical and practical transmission electron microscopy of biological, physical science, and engineering samples, emphasizing practical applications.

590R. Advanced Science In-Service. (1–5:Arr.:Arr. ea.) Su
In-service course for science teachers. Subjects may include:
—Ecology Science In-Service
—Genetics Science In-Service
—Evolution Science In-Service
—Botany Science In-Service
—Meteorology Science In-Service

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Integrative Biology Faculty

Professors
Anderson, Val Jo (1988) AS, Snow Coll., 1980; BS, MS, Utah State U., 1982, 1985; PhD, Texas A&M U., 1989.
Baumann, Richard W. (1975) BA, MS, PhD, U. of Utah 1965, 1967, 1970.
Black, Hal L. (1975) BS, MS, U. of Utah, 1966, 1968; PhD, U. of New Mexico, 1972.
Booth, Gary M. (1972) BS, MS, Utah State U., 1963, 1966; PhD, U. of California, Riverside, 1969.
Brotherson, Jack D. (1969) BS, MA, Brigham Young U., 1964, 1967; PhD, Iowa State U. of Science and Technology, 1969.
Cates, Rex G. (1985) BS, MS, Utah State U., 1965, 1968; PhD, U. of Washington, 1971.
Flinders, Jerran T. (1976) BS, MS, U. of Utah, 1967, 1968; PhD, Colorado State U., 1971.
Heckmann, Richard A. (1972) BS, MS, Utah State U., 1954, 1958; PhD, Montana State U., 1970.
Hess, Wilford M. (1962) BS, Brigham Young U., 1957; MS, PhD, Oregon State U., 1960, 1962.
Hooper, Gary C. (1992) BS, Brigham Young U., 1963; PhD, U. of California, Riverside, 1968.
Jeffery, Duane E. (1969) BS, MS, Utah State U., 1962, 1963; MA, PhD, U. of California, Berkeley, 1966, 1972.
Roeder, Beverly L. (1990) BA, Whittenberg U., 1978; DVM, Ohio State U., 1982; MS, Kansas State U., 1986; PhD, Pennsylvania State U., 1990.
Roundy, Bruce A. (1994) BA, MS, U. of Nevada, Reno, 1973, 1977; PhD, Utah State U., 1984.
Shiozawa, Dennis K. (1978) BA, Weber State Coll., 1972; MS, Brigham Young U., 1975; PhD, U. of Minnesota, St. Paul, 1978.
Sites, Jack W., Jr. (1982) BS, MS, Austin Peay State U., 1973, 1975; PhD, Texas A&M U., 1980.
Smith, H. Duane (1969) BS, MS, Brigham Young U., 1963, 1966; PhD, U. of Illinois, 1969.
St. Clair, Larry Lee (1976) BS, MS, Brigham Young U., 1974, 1975; PhD, U. of Colorado, 1984.
Welsh, Stanley L. (1960) BS, MS, Brigham Young U., 1951, 1957; PhD, Iowa State U. of Science and Technology, 1960.
White, Clayton M. (1970) BA, PhD, U. of Utah, 1961, 1968.

Associate Professors
Belk, Mark C. (1992) BS, MS, Brigham Young U., 1985, 1987; PhD, U. of Georgia, 1992.
Braithwaite, Lee F. (1964) BS, MS, PhD, Brigham Young U., 1959, 1962, 1970.
Crandall, Keith A. (1995) BA, Kalamazoo Coll., 1987; AM, PhD, Washington U., 1993.
Nelson, C. Riley (1999) BS, MS, Utah State U., 1980, 1984; PhD, Brigham Young U., 1986.
Rader, Russell B. (2000) BS, MS, Brigham Young U., 1977, 1982; PhD, Colorado State U., 1987.
Rogers, Duke S. (1989) BS, MS, Texas A&M U., 1976, 1979; PhD, U. of California, Berkeley, 1986.

Assistant Professors
Hatch, Kent A. (2001) BS, Brigham Young U., 1990; MS, PhD, U. of Wisconsin, 1995, 1996.
Johnson, Leigh A. (1999) BS, Brigham Young U., 1991; PhD, Washington State U., 1996.
McClellan, David A. (2001) BS, MS, Brigham Young U., 1991, 1994; PhD, Louisiana State U., 1999.
Peck, Steven L. (2000) BS, Brigham Young U., 1986; MS, U. of North Carolina, 1988; PhD, North Carolina State U., 1997.
Robinson, Todd F. (1996) BS, MS, Brigham Young U., 1986, 1988; PhD, Cornell U., 1996.
Whiting, Michael (1997) BS, Brigham Young U., 1990; PhD, Cornell U., 1994.
Woolstenhulme, Loreen Allphin (1996) BS, MS, Brigham Young U., 1991, 1992; PhD, U. of Utah, 1996.

Professional Professor
Furniss, H. Blaine (1971) BS, MS, Brigham Young U., 1968, 1975.

Professional Associate Professor
Gardner, John S. (1989) BS, Oregon State U., 1968; MS, PhD, Brigham Young U., 1976, 1978.

Collaborators and Adjunct Faculty
Sherman G. Brough, Patrick D. Collins, James Davis, Muthukumaran Gunasekaran, Ray Huffaker, Durant McArthur, Susan Meyer, Stephen Monsen, Don Nebeker, David Nelson, Melinda Ostraff, Jordan Pederson, Joseph B. Platt, Stewart Sanderson, Gary Strobel, P. Mallikarjuna Swamy, Jack C. Turner, Renee Van Buren, Ahmed M. Warfa, Sandy Wyllie-Echeverria, Tina Wyllie-Echeverria

Part-Time Faculty
Dennis Shirley, Greg Thyane

Emeriti
Allen, James Vincent (1969) BS, MS, Brigham Young U., 1967, 1968.
Allman, Verl Phillips (1950) BS, MS, Brigham Young U., 1948, 1952.
Andersen, William R. (1966) BS, MS, Utah State U., 1956, 1958; PhD, U. of California, Davis, 1963.
Barnes, James R. (1969) BS, Brigham Young U., 1963; MS, PhD, Oregon State U., 1967, 1972.
Farmer, James L. (1969) BS, California Inst. of Technology, 1960; PhD, Brown U. 1966.
Harper, Kimball T. (1973) BS, MS, Brigham Young U., 1958, 1960; PhD, U. of Wisconsin, Madison, 1963.
Heninger, Richard W. (1966) BS, Brigham Young U., 1957; MS, PhD, Oklahoma State U., 1959, 1961.
Jorgensen, Clive D. (1960) BS, MS, Brigham Young U., 1954, 1957; PhD, Oregon State U., 1964.
Moore, Glen (1954) BS, Brigham Young U., 1949; PhD, U. of Chicago, 1954.
Pritchett, Clyde L. (1967) BS, MS, Brigham Young U., 1960, 1962; PhD, U. of Wyoming, 1977.
Rushforth, Samuel R. (1970) BS, Weber State Coll., 1966; MS, PhD, Brigham Young U., 1968, 1970.
Smith, Lamont W. (1970) BS, Brigham Young U., 1960; MS, U. of Wisconsin, Madison, 1962; PhD, West Virginia U., 1970.
Stutz, Howard C. (1952) BS, MS, Brigham Young U., 1940, 1951; PhD, U. of California, Berkeley, 1956.
Tanner, Wilmer W. (1949) BA, MA, Brigham Young U., 1936, 1937; PhD, U. of Kansas, 1949.
Tidwell, William D. (1966) BS, MS, Brigham Young U., 1954, 1963; PhD, Michigan State U., 1966.
Tolman, Richard R. (1982) BS, MS, U. of Utah, 1963, 1964; PhD, Oregon State U., 1969.
Vallentine, John F. (1968) BS, Kansas State U., 1952; MS, Utah State U., 1953; PhD, Texas A&M U., 1959.
VanCott, John W. (1958) BS, Utah State U., 1941.
Weber, Darrell (1969) BS, MS, U. of Idaho, 1958, 1959; PhD, U. of California, Davis, 1963.
Whitehead, Armand T. (1969) BS, Brigham Young U., 1965; PhD, U. of California, Berkeley, 1969.
Whitton, Leslie (1962) BS, Utah State U., 1949; MS, U. of California, Davis, 1953; PhD, Cornell U., 1964.
Wood, Stephen L. (1956) BS, MS, Utah State U., 1946, 1948; PhD, U. of Kansas, 1953.

International and Area Studies

International and Area Studies Advisement Center
Noelani Trettevik, Supervisor
273 HRCB, (801) 422-3548

International and Area Studies Program Coordinators

Asian Studies, George W. Perkins
International Relations, Raymond V. Christensen
Latin American Studies, George B. Handley
Middle East Studies/Arabic, Chad F. Emmett

Admission to Degree Programs

All undergraduate international and area studies degree programs are open enrollment.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact the International and Area Studies Advisement Center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Asian Studies
BA	International Relations
BA	Latin American Studies
BA	Middle East Studies/Arabic
Minors	African Studies
	Ancient Near Eastern Studies
	Arab-Islamic Studies
	Asian Studies
	Chinese Studies
	French Studies
	German Studies
	International Development
	Italian Studies
	Japanese Studies
	Jewish Studies
	Korean Studies
	Latin American Studies
	Modern Near Eastern Studies
	Russian Studies
	Spanish Studies
	Western American Studies

Students should see the International and Area Studies Advisement Center for help or information concerning the undergraduate programs.

General Information

International Career Center

The International Career Center, located in 273 HRCB (international_career@byu.edu), guides students of any major with their preparation for an international career. The ICC hosts international career-oriented lectures and offers advisement, employment and graduate school information, and networking assistance.

International Study Programs.

International Study Programs (ISP) are open to students from all university majors. Students need not be formally admitted to BYU to participate in International Study and BYU credit may be transferred to their home institution.

Study Abroad: BYU's traditional off-campus study programs. In these programs students are able to further their general education; pursue specialized courses in languages, the social sciences, humanities, fine arts, and other fields; gain valuable insights into their own country; and further international understanding.

International Volunteers: A program similar to Study Abroad but with a more significant component of service learning at an international location and under the tutelage of faculty.

International Internships: Short-term, on-the-job apprentice training abroad under the direction of a firm, government agency, NGO, or other such institution.

Field Studies: A research experience abroad for small numbers of students directed by faculty, who generally do not accompany the students.

For futher information, see the Office of International Study Programs in the David M. Kennedy Center, 280 HRCB.

International and Area Studies (IAS)

Undergraduate Courses

100. Introduction to International Studies. (1:1:0)
Academic expectations in the major; career orientation; review of campus resources; faculty presentations.

199R. Academic Internship: International. (1–3:Arr.:Arr. ea.)
Nonsupervised undergraduate foreign internship.

201R. Cultural Survey. (1–4:2:2 ea.) Prerequisite: performing group or ISP participant status.
Multidisciplinary survey of various countries and regions in preparation for extended experience abroad.

220. Introduction to Development Studies. (3:3:0) F
Exploration of international development in nonformal education, micro-enterprises, community organizations; hunger, poverty, and other specific problems in developing areas of the world.

301. Kennedy Center Lecture Series. (1:1:0)
Weekly lectures by national and international authorities on world affairs; designed as an introductory class for all international and area studies majors.

351R. Model United Nations (MUN) Preparation. (1–3:Arr.:0 ea.)
Preparation for participating in MUN projects: on campus, in public schools, and at the United Nations in New York.

353R. International Outreach Preparation. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Developing abilities, through lectures and rigorous readings, to prepare and share international understanding in public and private schools.

354R. Model Arab League Preparation. (0.5:1:0 ea.) F 1st blk, W 2nd blk.
Understanding Middle Eastern governments and foreign policies. Preparing for and attending the Model Arab League Conference.

360R. International Field Study Preparation. (1–9:Arr.:0 ea.) For students preparing for International Field Studies, International Internships, or Study Abroad programs. F 2nd blk, W, Sp
Cross-cultural field research and survival with a regional emphasis and application.

397R. Topics in International and Area Studies. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Study relating to current world problems.

399R. Academic Internship: International. (1–9:Arr.:Arr. ea.) Prerequisite: acceptance into program.
Individualized work or volunteer experience in an international setting. Class must be coordinated through International Study Programs.

420. Senior Seminar in International Development. (3:3:0) W Prerequisite: IAS 220.
Integration of knowledge and experience from previous course work and internship activity. Discussion and analysis of the learning experience, followed by completion of a major research paper.

421. Seminar on Japanese Workplace: Society and Culture. (3:3:0) F, Su Prerequisite: instructor's consent.
Required seminar for interns in the Japan seminar and intern program (held only in Japan).

African Studies

The Discipline

The African Studies minor is designed to complement several majors. The minor features language competence, with options in several languages used in Africa, as well as courses in history and social sciences. Several options are available, and students interested in this minor are encouraged to consult with one of the coordinators of the program to find the best options to apply to their major.

Minor African Studies (18–21 hours*)

Minor Requirements

1. Complete one of the following language/humanities components:
   a. French
      Fren 321, 341, 456R.
   b. Swahili
      FLang 101R, 102R, 201R.
   c. Afrikaans
      Afrik 101, 102, 201.
   d. A combination of French, Swahili, Afrikaans, upper-division Portuguese, or other language component as approved by the program coordinator. (The coordinator is Professor Chantal Thompson.)
2. Complete three courses from the following social science component (a maximum of two courses per discipline; some of these courses may be offered only once every other year):
   Anthr 330.
   EdLF 362.
   Engl 358R.
   Geog 485.
   Hist 249, 250.
   IAS 397R.
   PlSc 352.

   Other courses may or may not be applicable, depending on the amount of African content therein. Approval of the program coordinator, therefore, is required. Courses that may contain significant African content at times include the following:
   Anthr 390R, 430, 431, 432, 435, 490R.
   Geog 493R.
   Hist 390R.
   OrgB 551.
   PlSc 472.

*Hours include courses that may fulfill GE or university requirements.

Asian Studies

The Discipline

The Asian Studies major is an interdisciplinary program designed to prepare students for careers and advanced study in the specialized field of Asia not provided by a major in one department. In the program, students acquire working competence in Chinese, Japanese, Korean, or another approved Asian language; a broad knowledge of Asian civilization; and a more specialized knowledge in an academic discipline.

Career Opportunities

The Asian Studies major is useful to those contemplating careers in academic areas, private industry, or government service. The import-export field and international services are particularly interested in persons who have a strong background in Asian Studies.

BA Asian Studies (50–71 hours*)

Major Requirements

1. Complete the GE foreign language requirement in an Asian language.
2. There is a strong expectation that majors will do work in Asia via Study Abroad, internships, etc.
3. Complete the following core courses:
   Asian 200, 342, 495.
   Hist 231.
   PlSc 385.
4. Complete one of the following focus history core course options:
   a. China: Hist 340, 341.
   b. Japan: Hist 343, 344.
   c. Korea plus China or Japan: Hist 346; 340 or 343.

   Note: Courses should coincide with language choice.
5. Complete the following focus language requirement:
   a. Chin 301; 302 or 441.
   b. Japan 301; 321 or 322.
   c. Korea 301; 303 or 315.
6. Complete 24 hours from the following elective courses (no more than 12 hours may be selected from any one department):
   Anthr 343.
   Chin 327, 343, 344, 345, 347, 441, 442, 443, 444.
   Geog 272.
   Hist 340, 341, 342, 343, 344, 346, 352.
   Hum 240.
   Japan 345, 350, 351, 352, 441, 443, 444.
   Korea 340, 344R, 345, 441, 443.
   Pl Sc 348, 353, 354, 386, 388.

   Other electives: If approved beforehand, up to 9 hours of 330R or 399R credit may be counted for overseas work done under one of the following: Study Abroad, internships, collaborative research, or independent field studies.

*Hours include courses that may fulfill GE or university requirements.

Minor Asian Studies (24 hours*)

Minor Requirements

1. Complete two of the following core courses:
   Asian 342.
   Geog 272.
   Hist 230, 231, 340, 343, 352.
   Hum 240.
   PlSc 385.
   RelC 351.
2. Complete 12 hours of a single Asian language.
3. Complete 6 hours of electives from item 6 of the preceding BA Asian Studies major.

*Hours include courses that may fulfill GE or university requirements.

Minor Chinese Studies (20 hours*)

Minor Requirements

1. Complete the following:
   Chin 301, 302, 321.

2. Complete three courses from the following:
   Anthr 343.
   Chin 343, 344, 345 (choose only one).
   Hist 340, 341, 342.
   PlSc 353, 388.

Note: Study Abroad/Internship credit is also applicable.

*Hours include courses that may fulfill GE or university requirements.

Minor Japanese Studies (20 hours*)

Minor Requirements

1. Complete the following:
   Japan 221, 301, 321.
2. Complete three courses from the following:
   Hist 343, 344.
   IAS 399R, 599R.
   Japan 345, 350, 351, 352 (choose only one); 390.
   PlSc 354.

Note: Study Abroad/Internship credit is also applicable.

*Hours include courses that may fulfill GE or university requirements.

Minor Korean Studies (19–20 hours*)

Minor Requirements

1. Complete the following:
   Korea 301, 303 or 315, 321 or 340.
2. Complete three courses from the following:
   Hist 346.
   IAS 397R (Contemporary Korean Politics)
   Korea 344R, 345 (choose only one)
   PlSc 348.

Note: Study Abroad/Internship credit is also applicable.

*Hours include courses that may fulfill GE or university requirements.

Asian Studies (Asian)

Undergraduate Courses

200. Introduction to Asian Studies: Methods and Materials. (3:3:0) F, W
Sources, materials, and methods of research and writing; critical analysis of research project.

330R. Asian Studies Abroad. (1–5:Arr.:Arr. ea.)
Preparatory course approved for Asian Seminar (Study Abroad).

342. Asian Literary Traditions. (3:3:0)
Comparative analysis of Asian literary works spanning several traditions.

495. Senior Seminar. (1:1:0)
Learning research and writing skills necessary to prepare and present major senior research paper.

500-Level Graduate Course (available to advanced undergraduates)

501R. Intensive Introduction to Asian Studies for Teachers and Prospective Teachers. (1–3:Arr.:0 ea.)
Readings, lectures, individual study, and curriculum development; integration for school teachers of Asian Studies into the curriculum of social studies, world history, and geography.

European Studies

The European Studies major and minor were discontinued effective March 1, 2002. Students already enrolled in the major wishing to continue may do so. Further information is available at the IAS Advisement Center, 273 HRCB, (801) 422-3548.

The minors listed below may be available. Please check with the IAS Advisement Center for the latest status and requirements.

Minor French Studies (18–33 hours*)

Minor Requirements

1. Complete the following prerequisite courses or equivalents:
   Fren 101, 102, 201, 202.
2. Complete the following:
   Fren 340, 361, 362.
3. Complete three courses from the following:
   ArtHC 330, 340.
   Fren-Ital 217.
   Geog 260.
   Hist 307, 332.

Note: Study Abroad/Internship credit is also applicable.

*Hours include courses that may fulfill GE or university requirements.

Minor German Studies (18–34 hours*)

Minor Requirements

1. Complete the following prerequisite courses or equivalents:
   Germ 101, 102, 201, 202.
2. Complete the following:
   Germ 330, 341, 342.
3. Complete three courses from the following:
   ClCv 241.
   Geog 260.
   Hist 307, 328, 329.

Note: Study Abroad/Internship credit is also applicable.

*Hours include courses that may fulfill GE or university requirements.

Minor Italian Studies (18–33 hours*)

Minor Requirements

1. Complete the following prerequisite courses or equivalents:
   Ital 101, 102, 201, 202.
2. Complete the following:
   Ital 340, 420, 421.
3. Complete three courses from the following:
   ArtHC 320, 330.
   Fren-Ital 217.
   Geog 260.
   Hist 302, 306, 307, 327.

Note: Study Abroad/Internship credit is also applicable.

*Hours include courses that may fulfill GE or university requirements.

Minor Russian Studies (18–33 hours*)

Minor Requirements

1. Complete the following prerequisite courses or equivalents:
   Russ 101, 102, 201.
2. Complete the following:
   Russ 202, 330, 340.

   Note: Contact the Russian section *before* registering for Russ 202.
3. Complete three courses from the following:
   Geog 265.
   Hist 304, 307, 330, 331.

   Note: Study Abroad/Internship credit is also applicable.

*Hours include courses that may fulfill GE or university requirements.

Minor Spanish Studies (18–33 hours*)

Minor Requirements

1. Complete the following prerequisite courses or equivalents:
   Span 101, 102, 201, 202.
2. Complete the following:
   Span 321, 339, 441.
3. Complete three courses from the following:
   ArtHC 330.
   Geog 260.
   Hist 306, 307, 314, 325.
   Span 345.

   Note: Study Abroad/Internship credit is also applicable.

* Hours include courses that may fulfill GE or university requirements.

European Studies (Europ)

Undergraduate Course

336R. European Studies. (1–6:Arr.:Arr.ea.)
Social sciences core course approved for Study Abroad programs in London, Vienna, Paris, and other locations.

International Development

The Discipline

International development is the study of basic social needs in developing areas or countries. It includes academic disciplines such as formal and nonformal education and literacy, economic development, primary health care, small business activities, water sanitation, agricultural productivity, nutrition, ecological preservation, etc. Development obviously implies raising the level and quality of life throughout the "underdeveloped" world.

Students should pursue solid preparation in an established major as well as classroom knowledge and experience in international development. This minor is designed to strengthen and expand the chosen major. Students will be assigned a faculty mentor in their major department who will help coordinate the minor with the major. In addition to a focused course of study, internship experience is highly encouraged. Internships provide valuable experience in applying development theory as well as allowing students to earn credit toward the minor (and in some cases the major as well).

Minor International Development (18 hours*)

Minor Requirements

1. Complete the following:
   IAS 220.
2. After consulting with an advisor, complete 12 hours from the following (or other applicable approved courses):
   Anthr 312, 432, 433, 438, 447.
   Biol 150, 350.
   BusM 430, 431, 432, 471.
   Comms 382.
   Econ 230, 257, 410, 430, 440.
   EdLF 362, 363.
   Geog 310, 313, 331, 341, 410.
   Geol 404.
   Hlth 436, 451, 480.
   IAS 353R, 397R, 399R.
   InBio 450.
   NDFS 424, 435.
   OrgB 531, 551.
   PlSc 372, 472, 535, 536.
   Soc 335, 345, 424, 429, 530.
3. Complete 3 hours of the following:
   IAS 420.

*Hours include courses that may fulfill GE or university requirements.

International Relations

The Discipline

International relations is an interdisciplinary major emphasizing the systematic study of political and economic relations between governments and people in different states, as well as comparisons across different political and economic systems. Students majoring in international relations also come to understand the historical and geographic basis for current international relationships.

Career Opportunities

The international relations major gives students a strong liberal arts education along with useful technical skills. In addition to substantive knowledge, international relations majors will learn analytical concepts and ideas that allow them to organize, explain, and make sense of relations between states and comparisons among them. High proficiency in math and statistics, writing, and a foreign language will prepare for a wide variety of career paths—including, but not limited to, government, law, business, and international organizations. Many career paths will require graduate-level training. Therefore, the international relations degree should be seen as certifying fluency in the ideas and methods of multiple fields so that students can find and pursue their own specialized interests rather than as a terminal degree.

It is important to distinguish international relations as a field from a more general definition of "international," which might include anything (people, language, culture, traditions, etc.) beyond the territorial boundaries of the United States. For students interested in the broad study of anything international and foreign, BYU's international relations degree will not provide the best training. In fact, no reasonable degree can include the systematic study of everything international and foreign. It should be remembered that BYU students have a wealth of options through which to pursue their particular international and foreign interests. These include:

- Social science majors with a strong international component, such as economics, geography, history, or political science.
- Area studies majors, including Latin American, Asian, and Middle East studies.
- Language majors.
- Other majors combined with a minor in one of the above areas.

BA International Relations (56–76 hours*)

Major Requirements

1. Complete the following introductory core courses:
   Econ 110.
   Geog 120
   PlSc 150, 170.
2. Complete the following research foundations and methods courses:
   PlSc 200.
   And complete one course from the following:
   Math 112, 119.
   Note: Math 119 must be completed with a B+ or better.
   And complete one course from the following:
   Econ 378.
   PlSc 328.
3. Complete the following:
   Econ 380, 381.
4. Complete one course from the following:
   Econ 430, 458, 459.
5. Complete one course from the following:
   Hist 393.
   PlSc 350, 376.
6. Complete one of the following international relations courses:
   PlSc 370, 372, 373, 375, 376, 377, 378.
7. Complete one of the following comparative politics courses:
   PlSc 341, 344, 347, 350, 352, 353, 354, 355, 357, 358.
8. Complete a foreign language proficiency: Students are to complete one language at a specified level with all attendant prerequisites. Some prerequisites may be waived depending upon previous language experience. The specific requirements for each language are listed on a separate sheet available from the International and Area Studies Advisement Office or the international relations coordinator.
9. Specializations: Complete one of the following tracks (no double counting of major courses allowed):
   A. International Politics
      Complete four courses from the following. At least one course must be from history and at least one course from political science.
      Anthr 432.
      Comms 382.
      Geog 341.
      Hist 307, 331, 376.
      PlSc 370, 371, 373, 375, 377, 378, 382, 471, 472, 473.
   B. Political Economy
      Complete four courses from at least two disciplines. At least two courses must be from economics.
      Econ 382, 388, 430, 458, 459, 478.
      Geog 331.
      PlSc 344, 372, 444.
   C. Asian Politics and History
      Complete four courses from the following. At least one course must be from political science and one course from history.
      Geog 272.
      Hist 341, 342, 344, 346, 350, 351.
      PlSc 348, 353, 354, 385, 386, 388.
   D. Latin American Politics and History
      Complete four courses from the following. At least one course must be from political science and one course from history. Students cannot count both Hist 359 and PlSc 380.
      Geog 255.
      Hist 252, 353, 355, 356, 359.
      PlSc 358, 380.
      Soc 335.
   E. Middle Eastern Politics and History
      Complete four courses from at least two disciplines. At least one course must be from history.
      Anthr 340.
      Geog 271.
      Hist 240, 241, 244, 336.
      MESA 350.
      PlSc 357, 381, 452, 474.
      Note: Hist 242 and 243 do not substitute here.

   With the prior approval of the international relations coordinator, a maximum of 3 hours of IR 398R, 399R, or IAS 351R may be used toward meeting the four-course requirement of specialization. Only the second semester of IAS 351R would be allowed.
10. Complete a capstone research experience in one of the following ways:
    Asian 495.
    IR 398R, 399R, 499R.
    LtAm 495.
    MESA 495R.
    PlSc 399R (3 hours required), 450, 470.
    Note: PlSc 450 or 470 can fill the GE Advanced Writing requirement.

Recommended

Either Hist 201, 202.
Or PlSc 201, 202.

RelC 351.

*Hours include courses that may fulfill GE or university requirements.

International Relations (IR)

Undergraduate Courses

398R. Directed International Study. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent; international relations major coordinator's consent.
Study and research in an international setting.

399R. Academic Internship: International. (1–3:0:0 ea.) Prerequisite: acceptance into program; international relations major coordinator's consent.
Individualized work or volunteer experience in an international setting. Must be coordinated through International Study Programs.

499R. Honors Thesis. (1–3:0:0 ea.) Prerequisite: international relations major core; methods requirements; international relations major coordinator's consent.

Latin American Studies

The Discipline

Designed to give a rich background in the languages, culture, and conditions of Latin America, the Latin American Studies program provides a multidisciplinary approach to university education. Courses from BYU's various academic departments (anthropology, Spanish and Portuguese, political science, geography, sociology, history, etc.) teach skills in perceptive

reading, analytical thinking, and clear and forceful writing, as well as provide in-depth understanding of Latin American cultures, languages, and history.

Students are invited to consult with the director of undergraduate studies regarding selection of classes.

Career Opportunities

Excellent career opportunities exist for those who prepare well in Latin American Studies. The degree offers a broad, general background in the liberal arts, and graduates are well prepared for careers in government, private industry, nonprofit organizations, some domestic and foreign teaching opportunities, the Peace Corps, the military, and other professions in which an understanding and appreciation of Latin America are required. Many graduates go into law, medicine, business, journalism, editing, advertising, etc. Others have had success in government, such as working for the State Department, immigration, the FBI, and other agencies.

Students are encouraged to take a double major or at least a strong minor in a single academic discipline to enhance their career objectives. The combination of another discipline and Latin American Studies makes the student attractive to employers desiring specific job skills as well as cultural understanding and appreciation.

General Information

Foreign Experience. Latin American Studies students are strongly encouraged to participate in Study Abroad programs in Mexico or Chile, in an internship program somewhere in Latin America, or in department-sponsored research in the area.

BA Latin American Studies (36–51 hours*)

Major Requirements

1. Complete the following:
   LtAm 211.
2. Complete the following prerequisite courses or equivalents:
   Either Port 101, 102, 201, 202.
   Or Span 101, 102, 201, 202.
3. Complete one of the following options:
   Either Port 321, 355.
   Or Span 321, 355.
4. Complete three social science courses from the following :
   Geog 255.
   Hist 251 or 252.
   PlSc 358 or 380.
   Soc 335.
5. Complete two humanities courses from the following:
   Hum 260.
   Port 439R, 451.
   Span 339 or Port 339.
   Span 365, 423, 451, 461R.
6. Complete the following:
   LtAm 495.
7. Complete at least 6 elective hours from an approved list (see advisement center).
8. Complete 3 hours of an internship, service learning, or Study Abroad course. These must be approved in advance by the director of Latin American Studies.

*Hours include courses that may fulfill GE or university requirements.

Minor Latin American Studies (18–34 hours*)

Minor Requirements

1. Complete the following prerequisite courses or equivalents:
   Either Port 101, 102, 201, 202
   Or Span 101, 102, 201, 202.
2. Complete one of the following courses:
   Port 321.
   Span 321.
3. Complete one of the following courses:
   Hum 260.
   Port 355.
   Span 355.
4. Complete four courses from the following:
   Anthr 326, 355, 365.
   Geog 255.
   Hist 251, 252, 353, 356, 357, 359, 363.
   Hum 260.
   LtAm 211, 495.
   PlSc 358, 380.
   Port 339, 451.
   Soc 335.
   Span 339, 365, 423, 451, 461.
5. Students may receive up to 3 elective hours for service learning, an internship, or Study Abroad.

*Hours include courses that may fulfill GE or university requirements.

Latin American Studies (LtAm)

Undergraduate Courses

211. Introduction to Latin American Studies. (3:3:0)
History, politics, sociology, geography, and culture of Latin America.

301. Preparation for Project Work in Latin America. (1:1:0)
Prerequisite: Span 102 and instructor's consent.
Historical, political, and cultural background of the target country(ies); intensive training in individual service specialty.

302. Project Work in Latin America. (2:0:0) Prerequisite: LtAm 301.
Teaching literacy, health, nutrition, gardening, leadership development, construction, etc., in Latin America.

495. Senior Seminar in Latin American Studies. (3:3:0)
Prerequisite: instructor's consent for minors.
Sources, materials, and methods of research and writing; critical analysis of a research project. Required for all Latin American Studies majors their senior year.

Middle and Near Eastern Studies

BA Middle East Studies/Arabic (50–65 hours*)

The Discipline

Middle East Studies examines the Arabic-, Turkish-, and Persian-speaking peoples and countries of the Middle East from a variety of perspectives. The region itself provides the focus, but historians, political scientists, anthropologists, economists, geographers, linguists, art historians, and literary and religious scholars all provide important insights into the area, each from the context of their own discipline. Undergirding all of these perspectives is linguistic skill in Arabic, through which access to original sources, press analyses, and native speakers is possible.

Middle East Studies as a whole tries to integrate these insights and to provide analysis and understanding that go beyond any single discipline.

Career Opportunities

The Middle East Studies/Arabic major aims specifically to prepare students to work as analysts and experts on the Middle East for government agencies, businesses, and other organizations. Linguistic skill in Arabic, as well as a solid understanding of the history, politics, and culture of the region is vital to these agencies, many of them desperate for real expertise and language ability. With its integrated, interdisciplinary focus on a single region and a strong emphasis on acquiring a usable knowledge of Arabic, it is also a good liberal arts major for students planning a career in law, medicine, or business in general—in fact, any field where a broad understanding and finely honed analytical and writing skills are valued.

Major Requirements

1. Complete the following prerequisite courses (may be waived for students with appropriate language experience):
   Arab 101, 102.
2. Complete the following language requirement:
   Arab 201, 211R, 301, 311R, 451, 452.
3. Complete the following background skills course:
   MESA 201.
4. Complete the following major courses:
   Geog 271.
   Hist 240, 241.
   Hum 242.
   MESA 350.
   PlSc 357.
5. Complete the following capstone course:
   MESA 495R.
6. Complete two of the following elective courses:
   Anthr 340.
   ArtHC 377.
   Heb 101, 102, 201.
   Hist 339R (Middle Eastern topics only).
   IAS 399R (with prior approval).
   MESA 467R.
   PlSc 381, 452, 457.
   Any other Arabic courses not already taken.
7. Complete one semester's residence in the Arab world, when conditions permit. Most students will complete this requirement by taking part in the Arabic Study Abroad program (usually September to December), during which advanced Arabic courses required for the major may be completed.

Middle East/Government Service Track

Students interested in using their Arabic language expertise to work in government (Department of State, Central Intelligence Agency, National Security Agency, military services, Federal Bureau of Investigation, etc.) are strongly recommended to complete the following courses, some of which will count for general education credit.

Econ 110.
PlSc 110, 150, 200, 376.

Note: Econ 110 and PlSc 110 combined may fill the American Heritage general education requirement.

Other courses to consider:
Geog 341.
PlSc 313, 315, 321, 370, 371, 372, 373, 375, 377, 378, 471.

Students are strongly advised to complete an internship through the Washington Seminar or in the Middle East. The internship should enable the student to apply his or her Arabic language ability or interest in the Middle East or learn the workings of the U.S. Congress.

*Hours include courses that may fulfill GE or university requirements.

Minor Ancient Near Eastern Studies (21 hours*)

Minor Requirements

1. Complete the following:
   Heb 131, 132.
2. Complete one course from the following:
   Hist 238, 239.
3. Complete one course from the following:
   Anthr 351, 378.
4. Complete 6 hours from the following:
   RelA 301, 302.
   NeLg 340, 345.

*Hours include courses that may fulfill GE or university requirements.

Minor Modern Near Eastern Studies (20 hours*)

Minor Requirements

1. Complete 8 hours in Arabic, modern Hebrew, or Turkish.
2. Complete one course from the following:
   Hist 240, 241.
3. Complete one course from the following:
   Anthr 340.
   Geog 271.
4. Complete two courses from the following:
   PlSc 357, 381, 474.

*Hours include courses that may fulfill GE or university requirements.

Minor Jewish Studies (22 hours*)

Minor Requirements

1. Complete 12 hours of Hebrew courses.
2. Complete the following:
   Hist 244.
   RelC 355.
3. Complete two courses from the following:
   Hist 315.
   PlSc 454, 457.
   Phil 415 (when treating Jewish philosophy).

*Hours include courses that may fulfill GE or university requirements.

Minor Arab-Islamic Studies (25 hours*)

Minor Requirements

1. Complete 12 hours of Arabic courses.
2. Complete one course from the following:
   Hist 240, 241.
3. Complete the following:
   Hum 242.
   RelC 356.

4. Complete two courses from the following:
   Phil 415.
   PlSc 452, 454.

*Hours include courses that may fulfill GE or university requirements.

Middle East Studies/Arabic (MESA)

Undergraduate Courses

201. Introduction to Middle East Studies. (3:3:0) F
Introduction to Middle East from historical, art/literary, and various social science perspectives, including introduction to disciplinary methodologies and writing research papers.

350. Islam in Contemporary Society. (3:3:0) W
Islam in modern society: doctrine, practices, institutions, approaches to the challenges of modern life; the rise of fundamentalism.

467R. Topics in Middle East Studies. (3:3:0 ea.)
Topics vary.

495R. Senior Seminar in Middle East Studies. (3:3:0 ea.) W
Prerequisite: MESA 201; major status; senior status.
Capstone course, including major research paper demonstrating ability to integrate cross-disciplinary information and methodology.

International Development

See International and Area Studies section of this catalog.

Italian

See French and Italian section of this catalog.

Japanese

See Asian and Near Eastern Languages.

Jerusalem Center for Near Eastern Studies

General Information

1. The Brigham Young University Jerusalem Center for Near Eastern Studies is an educational and cultural center created for study in the Near East, emphasizing religion, the humanities, and the social sciences. The Jerusalem Center has four principal goals:
   a. Provide students an opportunity to study the scriptures in the setting in which the patriarchs, prophets, and the Lord himself lived and taught, and by that study to gain understanding of and commitment to the truths of the gospel of Jesus Christ.
   b. Expand students' understanding of the religions, cultures, history, archaeology, geography, languages, and politics of the ancient and modern Near East.
   c. Foster research and creative endeavors by BYU faculty, students, and visiting scholars.
   d. Promote understanding with other peoples, cultures, and religious faiths that trace their roots to the Holy Land.
2. To achieve these goals, the Jerusalem Center offers a core curriculum with courses in the Old and New Testament and in the ancient and modern Near East. In addition, the center provides specialized courses in archaeology, geography, history, and culture of the Near East, including language study in Hebrew and Arabic.
3. The Jerusalem Center has marvelous physical facilities on Mount Scopus overlooking the oldest part of the city of Jerusalem. Classrooms, a library, a learning center, auditoriums, student and faculty apartments, a gymnasium and conditioning room, and a cafeteria provide a complete learning environment.

Academic Program

1. **Calendar and Program Emphasis.** Five programs are offered during the calendar year, scheduled to approximate the Provo campus calendar: fall and winter semesters (four-month programs), spring term (two-month program), and two summer terms (two-month programs).
   a. The fall and winter semester programs are designed for students who are currently enrolled at a college or university seeking their first undergraduate degree. Most of the courses offered are at the upper-division level. Students are encouraged to prepare themselves in advance for this exceptional experience by taking such courses as PlSc 170, Geog 120, Hist 300, 302, Arab 101, Heb 101.
   b. The fall and winter programs include field trips within the Holy Land and to Jordan, Sinai, and Egypt.
   c. The spring and summer term programs are open to students who are currently enrolled in a college or university seeking their first undergraduate degree. Recent high school graduates with the intention of pursuing a degree at a college or university are eligible to enroll during summer term. Both lower- and upper-division survey courses with extensive field study are available.
2. **Predeparture Orientation Course.** This Independent Study course (NES 100) is taken the semester or term before a student's work at the Jerusalem Center.
3. **Curriculum.** The following subject areas are taught at the center:
   a. Biblical Studies: Old Testament and New Testament
   b. Ancient Near Eastern Studies
   c. Modern Near Eastern Studies

d. Introductory course in either Hebrew or Arabic (required during fall and winter semesters; not offered during spring or summer terms).
e. Elective courses in biblical studies, ancient and modern Near Eastern Studies, and archaeology as arranged each semester.

Note: Some courses taken at the Jerusalem Center for Near Eastern Studies may be applied toward degrees in Near Eastern Studies, International Relations, and other majors in the College of Family, Home, and Social Sciences. Students should contact their advisement centers concerning specific degree requirements.

4. **Special Programs Offered Periodically at the Jerusalem Center for Near Eastern Studies.** These programs include intensive modern Arabic, intensive modern Hebrew, and nursing.

Jerusalem Center

Undergraduate Courses

Courses offered at the Jerusalem Center are *not* offered on the Provo campus and hence cannot be retaken.

Orientation Course

NES 100. Jerusalem Center Orientation. (1:2:0) Prerequisite: application for a Jerusalem Center foreign study program.
Introduction to the peoples and cultures of the Near East. Required of all participants prior to departure.

Religion Courses

RelA 101. Old Testament Survey. (2:1.5:3)
Survey of Old Testament integrated with extensive field study in biblical world; leads to understanding, appreciation, and application of scriptural teachings today. Offered as part of Jerusalem Center for Near Eastern Studies spring and summer term programs.

RelA 111. New Testament Survey of the Gospels. (2:1.5:3)
Survey of New Testament Gospels integrated with extensive field experiences in biblical world; leads to understanding, appreciation, and application of scriptural teachings today. Offered as part of Jerusalem Center for Near Eastern Studies spring and summer term programs.

RelA 303. Old Testament Studies. (3:3:4)
Study of Old Testament integrated with extensive field experiences in biblical world; leads to understanding, appreciation, and application of scriptural teachings today. Offered as part of Jerusalem Center for Near Eastern Studies fall and winter semester programs.

RelA 311. New Testament Studies of the Gospels. (3:2:4)
Study of New Testament Gospels integrated with extensive field experiences in biblical world; leads to understanding, appreciation, and application of scriptural teachings today. Offered as part of Jerusalem Center for Near Eastern Studies fall and winter semesters.

Near Eastern Studies Courses

NES 101R. Topics in Near Eastern Studies. (1–3:Arr.:Arr. ea.)
Studies based on individual and program needs. Elective credit for major and minor in Near Eastern Studies. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters.

NES 136. Introduction to Near Eastern Studies. (2:2:1)
Survey core course in social science/humanities. Elective credit for major and minor in Near Eastern Studies only. Offered as part of spring and summer term programs at the Jerusalem Center for Near Eastern Studies. Does not receive GE credit.

NES 326. Introduction to Near Eastern Studies. (2:2:1) Prerequisite: at least junior class standing.
Social science/humanities core course. Elective credit for major and minor. Offered (as part of the summer term program) at the Jerusalem Center for Near Eastern Studies only. Does not receive GE credit.

NES 336. Ancient Near Eastern Studies. (3:2:4)
Social science/humanities core course emphasizing ancient history extending to Byzantine period. Elective credit for major and minor in Near Eastern Studies. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters. Does not receive GE credit.

NES 347. (NES-Hist 242) Arab and Islamic Civilization. (2:2:1)
Social science/humanities core course covering Arab and Islamic civilization; historical evolution of Middle East to present. Provides overview of modern Palestinian society. Elective credit for major and minor in Near Eastern Studies. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters. Does not receive GE credit.

NES 349. (NES-Hist 243) Jewish Civilization. (2:2:1)
Social science/humanities core course; broad introduction to Jewish self-understanding and history, focusing on relationships among people, faith, and land. Elective credit for major and minor in Near Eastern Studies. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters. Does not receive GE credit.

NES 398R. Advanced Topics in Near Eastern Studies. (1–3:Arr.:Arr. ea.)
Studies based on individual and program needs. Elective credit for major and minor in Near Eastern Studies. Also offered at the Jerusalem Center for Near Eastern Studies during all programs.

NES 499R. Special Topics in Near Eastern Studies. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Studies based on individual and program needs.

Language Courses

Arab 100. Introduction to Arabic. (1:1.5:0)
Beginning Arabic. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters.

Heb 100. Introduction to Hebrew. (1:1.5:0)
Beginning Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters.

Heb 313. Readings in the Old Testament. (4:5:0) W
Readings in the Old Testament in Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only.

Heb 321. Intermediate Conversation and Media. (3:3:0) W alt yr. Prerequisite: Heb 101, 102.
Capitalizing on daily life in Jerusalem to increase speaking, reading, writing, and listening comprehension in modern Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only.

Heb 411R. Advanced Conversation. (4:4:4) Prerequisite: Heb 311R or equivalent.
Emphasizes conversation in everyday situations. Students role play various situations in class and then apply their learning in Jerusalem. Offered at the Jerusalem Center for Near Eastern Studies only.

Heb 421. Readings in the Hebrew Translation of the New Testament. (3:3:0) Sp alt yr.
Readings in the New Testament in Hebrew translation. Offered at the Jerusalem Center for Near Eastern Studies only.

Note: Heb 312 (Hebrew Media), Heb 313, Heb 411R (Advanced Conversation), and Heb 421 are offered in the intensive modern Hebrew program. Arab 312 (Arabic Media) and 411R (Advanced Conversation) are offered in the intensive modern Arabic program. The intensive Hebrew and Arabic programs are offered alternate years during the winter program only.

Jerusalem Center for Near Eastern Studies Faculty

Faculty members on professional development leave from the following academic areas at Brigham Young University are selected for up to one-year teaching appointments at the Jerusalem Center: Religious Education, Near Eastern Studies, History, Political Science, and foreign languages. Faculty members are also selected from the Church Educational System, BYU—Idaho, and BYU—Hawaii. Faculty members are expected to pursue an approved program of research, writing, and travel in addition to teaching courses.

Resident Faculty

Part-time faculty are drawn from local Palestinian and Israeli academic institutions.

Special Programs Faculty

Faculty members on professional development leave from Brigham Young University are also selected for teaching appointments in special programs at the Jerusalem Center: Arabic, Hebrew, and nursing.

Scholars in Residence

Selected faculty from Brigham Young University are associated with the Jerusalem Center during a one-semester to one-year stay in Jerusalem through a scholar-in-residence program. Scholars in residence can be appointed from a wide range of academic areas at the university.

David M. Kennedy Center for International Studies.

See International and Area Studies section of this catalog.

Korean

See Asian and Near Eastern Languages.

Latin

See Humanities, Classics, and Comparative Literature section and Center for Language Studies section of this catalog.

Latin American Studies

See International and Area Studies

Latvian

See Germanic and Slavic Languages.

J. Reuben Clark Law School

For more information see the current J. Reuben Clark Law School Bulletin and the BYU 2003–2004 Graduate Catalog.

Center for Language Studies

Melvin J. Luthy, Director
2054B JKHB, (801) 422-3263

College of Humanities Advisement Center
3078 JKHB, (801) 422-4789

Admission to Degree Program

The undergraduate minor program in the Center for Language Studies is open enrollment.

General Information

To extend the exceptional foreign language capabilities of BYU to a large audience, the Center for Language Studies offers a variety of intensive language courses during the summer term (mid-June to mid-August) and regular courses in less commonly taught languages during the academic year.

Summer intensive courses include:

Advanced language/culture courses for returned missionaries (and others of comparable ability), especially in less commonly taught languages. Some of these courses will fulfill the general education language requirement.

Foundation courses covering the equivalent of a full academic year of study in a major language.

Students may earn up to two semesters of academic language credit for an intensive summer course. Students need not be regular BYU students to enroll and receive credit during summer term. Student demand and availability of qualified faculty determine which languages are taught each summer.

Interested students and potential adjunct faculty are requested to register their desires to participate in summer programs as early as possible by completing the survey form on the center's Web page, *http://humanities.byu.edu/CLS/home.html*, or by signing an interest form in the center's office, 2054 JKHB. Brochures detailing summer programs are mailed during winter semester.

Academic-year courses include:

Established courses in less commonly taught languages that regular, full-time faculty teach. Enrollment in these courses is generally regular daytime enrollment. See course listings below.

Courses on demand that are taught if sufficient student demand and qualified teachers are available. Enrollment in these courses is generally through the Division of Continuing Education.

Language and culture courses for returned missionaries (see departmental pages for complete listing of language courses):

Some of the following courses are designated as "culminating courses" to fulfill the general education language requirement. (Some courses not listed below but taught in the summer programs also may fulfill the general education language requirement.) Returned missionaries should receive advice from the relevant department when multiple classes in the language of their interest are listed.

Department of Asian and Near Eastern Languages:
Cant 202.
Chin 102, 112, 202.
Japan 221.
Korea 202.

Department of Germanic and Slavic Languages:
Bulgn 330.
Czech 330.
Dansh 340.
Dutch 340.

Finn 340.
Germ 330.
Hung 330.
Norwe 340.
Polsh 330.
Russ 330.
SrbCr 330.
Swed 340.
Ukrai 330.

Department of French and Italian:
Fren 202, 321, 340.
Ital 321, 340.
Rom 340.

Department of Spanish and Portuguese:
Port 302.
Span 302, 321.

Less commonly taught languages listed under the general title FLang 330R may also fulfill the GE Foreign Language requirement.

Upon completion of an approved culminating language course that fulfills the foreign language general education requirement, returned missionaries and others with comparable skills may receive additional graded credit by examination for classes leading to the level of the culminating course. In some cases, up to 12 credit hours may be earned by examination without taking the culminating course, but all such credit will be pass/fail credit. All language credit earned by enrollment on campus will be graded.

Courses that the center may offer, often in collaboration with language departments, depending on demand and availability of qualified faculty: The number and types of classes vary. (Students should check with the center to determine whether the class offered fulfills the GE Foreign Language requirement):

Afrikaans	Hebrew	Quechua
Albanian	Hindi	Quiche
Arabic	Hmong	Rarotongan
Armenian	Hungarian	Romanian
Aymara	Icelandic	Russian
Basque	Ilangot	Samoan
Bulgarian	Ilocano	Serbian
Cambodian	Indonesian	Serbo-Croation
Cakchiquel	Italian	Slovene
Cantonese	Japanese	Spanish
Catalan	Korean	Swahili
Cebuano	Laotion	Swedish
Croation	Latin	Tagalog
Czech	Latvian	Tahitian
Danish	Lithuanian	Taiwanese
Dutch	Mandarin	Thai
Estonian	Maori	Tongan
Farsi	Maya	Trukese
Fijian	Mongolian	Turkish
Finnish	Navajo	Ukrainian
French	Niuean	Urdu
German	Norse	Vanuatau
Greek	Norwegian	Vietnamese
Guarani	Polish	Waray-Waray
Haitian Creole	Portuguese	Welsh
Hawaiian		

The center administers a broad program in Scandinavian Studies.

Foreign Language Courses (FLang)

Undergraduate Courses

101R. First-Year Language Study. (4:5:1 ea.)
Vocabulary building, grammar, listening, speaking, reading, and writing.

102R. First-Year Language Study. (4:5:1 ea.) Prerequisite: FLang 101R in same language.
Vocabulary, grammar, listening, speaking, reading, writing, and culture.

201R. Second-Year Language Study. (4:5:1 ea.) Prerequisite: FLang 102R in same language.
Conversation, vocabulary building, and reading and writing skills.

202R. Second-Year Language Study. (4:5:1 ea.) Prerequisite: FLang 201R in same language.
Continued emphasis on conversation, vocabulary building, reading, and writing.

321R. Advanced Grammar. (3:3:0 ea.) Prerequisite: FLang 202R in same language.
Systematic review of grammar and syntax of less commonly taught languages.

330R. Cultural History. (3:3:0 ea.) Prerequisite: FLang 202R or equivalent in same language.
Entry course for returned missionaries or others of equivalent language experience. Culture, with listening, speaking, reading, writing, and grammar as secondary emphases. Required course for obtaining language credit by examination. May fulfill the GE Foreign Language requirement.

340R. Introduction to Literature. (3:3:0 ea.) Prerequisite: FLang 330R in same language.
Advanced study of literature of less commonly taught language. Continued listening, speaking, writing, grammar, and culture.

Scandinavian Studies

Minor Scandinavian Studies (12 hours*)

Minor Requirements

1. Complete one course from the following:
   Dansh 340.
   Finn 340.
   Iclnd 429.
   Norwe 340.
   Swed 340.
2. Complete the following:
   Scand 430.
3. Complete 6 hours from the following:
   Scand 344R, 429 (may not be taken by students who have had Iclnd 429), 490R, 491R.
   Hist 332.
   A literature course in a language different from that taken in item 1 above:
   Dansh 340.
   Finn 340.
   Iclnd 429.
   Norwe 340.
   Swed 340.

Note: Students who choose Icelandic or Finnish courses from item 1 above may substitute two semesters of a second Scandinavian language as the equivalent of one of these electives; students who choose Danish, Norwegian, or Swedish courses from item 1 above may substitute two semesters of Finnish.

*Hours include courses that may fulfill GE or university requirements.

Scandinavian Studies (Scand)

Undergraduate Courses

344R. Topics in Scandinavian Studies. (3:3:0 ea.)
Topic varies. Typical topics might be folklore, culture, music, film, emigration, art and design, political and economic problems, literature in translation, etc.

377. Language Teaching Procedures. (3:3:2) W Prerequisite: Dansh, Finn, Norwe, or Swed 340.
Prior or concurrent enrollment in this course required for student instructors in Scandinavian languages. Meets with Germ 377 and Russ 377.

429. Old Norse. (3:3:0) Recommended: knowledge of a modern Scandinavian language.
Returned missionaries from Iceland or those with equivalent experience should enroll in Iclnd 429. Grammar and exercises. Readings in Old Norse literature.

430. Cultural History of Scandinavia. (3:3:0)
Scandinavian culture from the Vikings to the present. Works may be read in English translation.

490R. Seminar in Scandinavian Studies. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Topics vary.

491R. Directed Readings in Scandinavian. (1–3:Arr.:Arr. ea.) Prerequisite: written plan of study approved by both instructor and program coordinator.
Directed individual study. Register by add card only.

Danish Courses (Dansh)

101, 102. First-Year Danish. (4:5:1 ea.)
Basic language skills.

201. Second-Year Danish. (4:5:1) Prerequisite: Dansh 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second Year Danish. (4:5:1) F, W Prerequisite: Dansh 201.
Culminating course for GE Foreign Language requirement (except for returned missionaries or those with equivalent experience). Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Dansh 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Dansh 211R or equivalent experience.
Advanced conversational skills.

340. Danish Literature. (3:3:0) Prerequisite: Dansh 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent Danish language experience. Required course for obtaining language credit by examination (Dansh 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement. Readings in Danish literature; introduction to basic literary concepts.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Danish.

Finnish Courses (Finn)

101, 102. First-Year Finnish. (4:5:1 ea.)
Basic language skills.

201. Second-Year Finnish. (4:5:1) Prerequisite: Finn 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second Year Finnish. (4:5:1) F, W Prerequisite: Finn 201.
Culminating course for GE Foreign Language requirement (except for returned missionaries or those with equivalent experience). Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Finn 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Finn 211R or equivalent experience.
Advanced conversational skills.

340. Finnish Literature. (3:3:0) Prerequisite: Finn 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent Finnish language experience. Required course for obtaining language credit by examination (Finn 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement. Readings in Finnish literature; introduction to basic literary concepts.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Finnish.

Icelandic Courses (Iclnd)

101, 102. First-Year Icelandic. (4:5:1 ea.)
Basic language skills.

201. Second-Year Icelandic. (4:5:1) Prerequisite: Iclnd 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing writing.

202. Second-Year Icelandic. (4:5:1) Prerequisite: Iclnd 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Iclnd 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Iclnd 211R or equivalent experience.
Advanced conversational skills.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Icelandic.

429. Old Icelandic Language and Literature. (3:3:0) Prerequisite: Iclnd 201 or equivalent experience.
Entry course for returned missionaries or others with equivalent Icelandic language experience. Required course for obtaining language credit by examination (Iclnd 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement. Readings and exercises in Old Icelandic; introduction to Old Icelandic literature and its influence on later Icelandic culture.

Norwegian Courses (Norwe)

101, 102. First-Year Norwegian. (4:5:1 ea.)
Basic language skills.

201. Second-Year Norwegian. (4:5:1) Prerequisite: Norwe 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second Year Norwegian. (4:5:1) F, W Prerequisite: Norwe 201.
Culminating course for GE Foreign Language requirement (except for returned missionaries or those with equivalent experience). Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Norwe 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Norwe 211R or equivalent experience.
Advanced conversational skills.

340. Norwegian Literature. (3:3:0) Prerequisite: Norwe 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent Norwegian language experience. Culminating course for GE Foreign Language requirement. Required course for obtaining language credit by examination (Norwe 101, 102, 201, 211R). Readings in Norwegian literature; introduction to basic literary concepts.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Norwegian.

Swedish Courses (Swed)

101, 102. First-Year Swedish. (4:5:1 ea.)
Basic language skills.

201. Second-Year Swedish. (4:5:1) Prerequisite: Swed 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second Year Swedish. (4:5:1) F, W Prerequisite: Swed 201.
Culminating course for GE Foreign Language requirement (except for returned missionaries or those with equivalent experience). Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Swed 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Swed 211R or equivalent experience.
Advanced conversational skills.

340. Swedish Literature. (3:3:0) Prerequisite: Swed 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent Swedish language experience. Required course for obtaining language credit by examination (Swed 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement. Readings in Swedish literature: introduction to basic literary concepts.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Swedish.

Welsh Courses (Welsh)

Undergraduate Courses

101A,B. First-Year Welsh. (2:2:1 ea.)
Pronunciation, grammar fundamentals, and vocabulary building, emphasizing conversation.

102. First-Year Welsh. (4:4:0) Prerequisite: Welsh 101 or equivalent.
Pronunciation, grammar fundamentals, and vocabulary building, emphasizing conversation.

201. Second-Year Welsh. (4:4:0) Prerequisite: Welsh 101 and 102 or equivalent.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

Latvian

See Germanic and Slavic Languages.

Linguistics and English Language

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Admission to Degree Program

All undergraduate degree programs in the Department of Linguistics and English Language are open enrollment.

The Discipline

Linguistics is the study of language in all its aspects—from speech sounds to sentence formation to meaning; from how language is organized and used in a social setting to how it is organized and processed in the brain or by computers. Linguists study language form, language change, language acquisition, and even the texts in which language is recorded. Linguists recognize that the communicative power of language is what brings cohesion to all human enterprises. For the student interested in the nature of language, linguistics is the subject to study.

The science of linguistics has many real-world applications, including translation, information storage/retrieval, lexicography, editing, and language teaching. In addition to its major in general linguistics, BYU's Department of Linguistics and English Language offers undergraduate minor programs (as well as graduate degrees) in several of these areas.

Career Opportunities

A linguistics degree with an emphasis in computers may lead to jobs in high technology, e.g., machine translation, information retrieval, speech recognition and production software, and lexicography. Linguistics is also recognized as a strong specialization for those pursuing a career in military intelligence or technical writing.

The English language major is in many ways similar to the linguistics major, though its focus is more specifically on English linguistics, an important focus given the now international status of the English language as a language of wider communication. The major provides useful preparation for careers that require special attention to the English language, such as advertising and technical writing. The English language major along with a TESOL or editing minor is an especially strong combination.

The teaching of English to speakers of other languages is an applied linguistics area of high demand, both within the United States and around the world (see further description under TESOL below).

In addition, the linguistics and English language majors are excellent preparations for those planning graduate studies in areas as diverse as law, international business, tourism, library science, TESOL, communicative disorders, and speech pathology, not to mention graduate studies in specific languages or in linguistics itself.

General Information

The Department of Linguistics and English Language strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	English Language
BA	Linguistics
Minors	Computers and the Humanities
	Editing
	Linguistics
	Language and Computers
	TESOL
	TESOL (K–12)

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Linguistics
Cert TESOL
MA TESOL

For more information see the BYU 2003–2004 Graduate Catalog.

BA English Language (45 hours)

Major Requirements

1. Complete the following core courses:
   ELang 223, 322, 324, 325, 326, 495.
   Ling 427.
2. Complete one course from the following:
   ELang 525, 526, 527.
3. Complete three courses from the following:
   CHum 281, 283, 284, 381, 384.
   ELang 524, 525, 526, 527, 528, 529.
   Ling 430, 545, 550.

   Note: Only one computers and the humanities course can be used to fill this requirement.
4. Complete 12 credit hours (to a 200-level or higher) of university course work (or the equivalent) in a single language relevant to the historical development of English. Choose either classical Greek, French, Latin, or a Germanic language (German is preferred but Danish, Dutch, Norwegian, or Swedish will be accepted).

BA Linguistics (44–53 hours*)

Major Requirements

1. Complete the following courses:
   Ling 330, 420, 427, 430, 450, 490.
2. Complete 12 credit hours (to a 200-level or higher) of university-level course work (or the equivalent) in a single non-Indo-European or a Slavic language. Students who are minoring in a non-IE language (see item 4a below) or who are native speakers of such a language may fill this requirement with any other foreign language by taking classes or by passing a special examination after taking a culminating culture class. Native speakers of non-IE languages may elect to use English to fill this requirement. If they choose to earn the credit by special examination, they must take Engl 230 or 232 or Hum 261 or 262, or an equivalent class as their culminating culture course. If they choose to earn the credit by taking classes, they must enroll for ESL 301, 302, 303, 304.
3. Complete one of the following options:
   a. Complete an approved university minor in one of the following areas: foreign language (cannot be the same as item 3 above), TESOL, language and computers, computers and the humanities, or speech pathology.
   b. Complete 15 hours selected from any of the courses listed below or approved by the Linguistics and English Language Department:
      Anthr 309, 420.
      CHum 280, 281, 283, 284, 287, 381, 385, 387.
      ELang 324, 325, 326.
      Ling 230, 480.
      Phil 420.
      Psych 375, 376.

*Hours include courses that may fulfill GE or university requirements.

Minor Computers and the Humanities (CHum) (15 hours)

Minor Requirements

1. Complete one course from the following:
   CHum 281, 284.
2. Complete 9 hours from the following:
   CHum 280, 283, 284, 287, 381, 384, 385, 387, 490R (with coordinator approval.)
   Ling 480.
3. Complete 3 hours from one of the following:
   CHum 484R, 489R.

Minor Editing (21 hours)

Minor Requirements

Complete the following:
CHum 283.
ELang 223, 322, 325, 330, 421R, 430R.

Minor Linguistics (15 hours)

Minor Requirements

1. Complete the following courses:
   Ling 330, 450.
2. Complete 9 hours of electives from other Linguistics and English Language Department course work in consultation with a department advisor.

Minor Language and Computers (15 hours)

Minor Requirements

1. Complete the following:
   CHum 280, 287.
   Ling 230.
2. Complete 6 hours from the following:
   CHum 281, 283, 284, 381, 384, 385, 387, 484R (3 hours), 489R (3 hours), 490R (with coordinator approval).
   Ling 480.

Teaching English to Speakers of Other Languages (TESOL)

The Discipline

Preparation to teach English to speakers of other languages involves multidisciplinary course work in a number of areas, including linguistics, language acquisition, teaching methods and materials, educational programs, and computer-assisted instruction.

BYU offers two TESOL minors to accommodate prospective teachers with differing career goals. The first minor is designed to prepare teachers of English as a second or foreign language in general and offers students the flexibility to choose an emphasis in keeping with their professional interests. The second, TESOL (K–12), focuses on teaching students of limited English proficiency who are in the public schools of the United States.

Career Opportunities

TESOL minors are qualified for many overseas positions teaching English as a foreign language. They may also work in various ESL and bilingual education programs in the United States and other

English-speaking countries. Possible teaching settings range from adult education classes to special courses for immigrant school children. The TESOL (K–12) minor (designed for TESOL minors who wish to teach in the public school system) has been approved by the Utah State Board of Education as leading to the Utah State ESL endorsement. Earning this endorsement will enhance the career possibilities of teachers holding an elementary or secondary state teaching credential.

Minor TESOL (17 hours)

Minor Requirements

1. Complete the following:
   ELang 223.
   Ling 440, 460, 471, 472.
2. Complete one course from the following:
   CHum 281.
   ELang 325.
3. Complete 3 hours of the following:
   Ling 496R.

Minor TESOL (K–12) (21 hours)

Minor Requirements

1. Complete the following:
   FamLf 305.
   Ling 230, 440, 460, 471, 472.
2. Complete one course from the following:
   ElEd 450.
   ScEd 450.
3. Complete at least 3 credit hours' worth of time in an ESL situation and/or working with limited-English-proficiency (LEP) students while enrolled in ElEd 476R, 477R, ScEd 476R, or 477R.

English as a Second Language (ESL)

Undergraduate Courses

301. Advanced Academic English for International Students. (3:3:1) For bilingual foreign students.
Integrated skills course for nonnative English speakers, primarily focused on academic listening, speaking, and the basic skills needed for success at an American university.

302. Advanced English Pronunciation for International Students. (3:3:0) For bilingual foreign students.
Improving the speaking ability of nonnative English students, emphasizing rhetorical and communication strategies, pronunciation, stress, rhythm, intonation, and fluency.

303. College Reading and Study Skills for International Students. (3:3:0) For bilingual foreign students.
Learning strategies to improve reading speed and to understand materials used in university classes. Should be taken during the first year (for nonnative English speakers).

304. Academic Writing for International Students. (3:3:1) For bilingual foreign students.
Learning how to write essays, reports, and research papers acceptable in an American university. Should be taken before Engl 115 (for nonnative English speakers).

404. ESL Advanced Composition. (3:3:0) For graduate ESL students.
Research and writing techniques for prethesis work.

Computers and the Humanities (CHum)

Undergraduate Courses

98. Basic Academic Word Processing Skills. (0:2:0)
Introduction to academic computer skills, focusing on programs for writing student papers (no technical background necessary). Fee.

180. Humanities Computing Survey. (1:1:1)
Open to all majors. Survey of how computer software packages are used in humanities disciplines: for computer-based instruction, for academic publishing, and as research tools.

280. Basic Humanities Computing Skills. (3:3:0) Prerequisite: CHum 180 or computer experience.
Software applications for computer-based instruction, academic publishing, and research; introduction to programming new applications.

281. Computers and Teaching 1. (3:3:0) Prerequisite: CHum 180 or computer experience.
Recommended for teaching majors and minors. Applying computer technology to teaching: designing, authoring, and evaluating computer-based instructional materials for lab and classroom use.

283. Computers and Print Publishing. (3:3:0) Prerequisite: CHum 180 or computer experience.
Applying computer technology to academic publishing in print media: journals, newsletters, textbooks, and other scholarly publications.

284. Computers and Internet Publishing. (3:3:0) Prerequisite: CHum 180 or computer experience.
Applying computer technology to academic publishing in electronic media: Internet sites for classes, research projects, and academic organizations. Scripting for intelligent/dynamic Web pages.

287. Programming Humanities Applications 1. (3:3:0) Prerequisite: CHum 180 or computer experience.
Computer programming for language and humanities applications in a visual environment: data types, character representation, flow of control, file input/output, string manipulation.

381. Computers and Teaching 2. (3:3:0) Prerequisite: CHum 281.
Advanced applications of computer technology to teaching: integrating digital graphics, sound, and video; hypertext and hypermedia; computer-based testing; network applications.

384. Encoding and Markup. (3:3:0) Prerequisite: CHum 284.
Principles of markup languages (SGML, XMI, etc.) and encoding standards for academic content. Practical experience encoding, processing, and delivering marked-up data.

385. Computer Research Tools and Methods. (3:3:0) Prerequisite: CHum 180 or computer experience.
Applications of computer technology to research in language and literature: quantitative analysis, text data processing, corpora, databases, online resources, statistics, evaluation.

387. Programming Humanities Applications 2. (3:3:0) Prerequisite: CHum 287.
Advanced computer programming for the humanities: advanced string manipulation and format conversions, data structures, integrating modules written in another programming language, software design, performance issues.

484R. Publishing Workshop. (3:0:3 ea.) Prerequisite: CHum 384.
Applying Internet publishing principles to a substantial development project. Students work as a group with faculty advisors/mentors.

489R. Humanities Computing Project. (1–3:Arr.:0 ea.)
Prerequisite: any 300-level computers in the humanities course.
Applying principles from other courses to a substantial research or development project. Students work individually with faculty and technical advisors.

490R. Humanities Computing Seminar. (1–3:Arr.:0 ea.)
Prerequisite: instructor's consent.
Individual or group study of current issues and developments in humanities computing. Extended readings; research or project required. Pass/fail grade only.

English Language (ELang)

Undergraduate Courses

223. Introduction to the English Language. (3:3:0)
Overview of English from linguistic point of view, emphasizing structure of English and social, biological, and psychological aspects of language.

322. Modern American Usage. (3:3:0) Independent Study also.
Prerequisite: ELang 223.
Current conventions and effective use of American English.

324. History of the English Language. (3:3:0) Prerequisite: ELang 223.
Basic changes from Old English to modern English, including modern American dialects.

325. The Grammar of English. (3:3:0) Independent Study also.
Prerequisite: ELang 223.
Study of English grammar in various applications.

326. Meaning in English. (3:3:0) Prerequisite: ELang 223.
General semantics, emphasizing the way in which words influence thought and behavior.

330. Basic Editing Skills. (3:3:0) Prerequisite: ELang 322 or 325.
Editing theory and practice, emphasizing copy editing and basic live editing.

399R. Academic Internship: Editing and English Language. (1–9:0:0 ea.)
On-the-job experience and education related to editing and English language studies.

421R. Studies in Language or Editing. (3:3:0 ea.) Prerequisite: ELang 223.
Topics vary.

430R. Editing for Publication. (1–3:Arr.:0 ea.) Prerequisite: ELang 330; CHum 283.
Refining copy editing and substantive editing skills through hands-on work with actual publications; one-on-one feedback and mentoring.

495. The Senior Course. (3:3:0) Prerequisite: senior status; English language major status.
In-depth study of a limited area of English language. Content varies; requires research and writing.

500-Level Graduate Courses (available to advanced undergraduates)

521R. Studies in Language. (3:3:0 ea.) Prerequisite: ELang 324 or equivalent.
Topics vary.

524. History of the Book. (3:3:0)
History and development of the book, including modern methods and practices.

525. Old English. (3:3:0) Prerequisite: ELang 223, 324; or equivalents.
Old English grammar and vocabulary; traditional syntactical patterns in various types of Old English prose and poetry.

526. Middle English. (3:3:0) Prerequisite: ELang 223, 324; or equivalents.
Detailed study of the principal dialects of Middle English, as illustrated in the literature of the period.

527. Early Modern English. (3:3:0) Prerequisite: ELang 223, 324; or equivalents.
English language from about 1500 to 1800, with special emphasis on language of Shakespeare and the King James Bible.

528. Varieties of English. (3:3:0) Prerequisite: ELang 223, 324; or equivalents.
Regional and social variation in English, especially standard and nonstandard national and world Englishes, including English-based pidgins and creoles.

529. Structure of Modern English. (3:3:0) Prerequisite: ELang 325, or instructor's consent.
English syntax through modern grammars; theories underlying those grammars.

Linguistics (Ling)

Undergraduate Courses

230. Language, Mind, and the World. (3:3:0)
Broad overview of language as the medium that makes thinking, understanding, communications, and teaching possible.

330. Introduction to Linguistics (Modern). (3:3:0)
Basic understanding of linguistic systems. Phonology, morphology, syntax, semantics, and pragmatics.

377R. Basic Training in TESOL. (1–3:Arr.:Arr. ea.)
Basic preparation to teach English to speakers of other languages. Modular in nature, the course offers credit according to number of modules completed.

399R. Academic Internship: Linguistics. (1–9:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience and education related to linguistics.

420. Phonetics. (3:3:0) Prerequisite: Ling 330.
General inventory of speech sounds possible in language, from both an acoustic and articulatory point of view.

427. Phonology and Morphology. (3:3:0) Prerequisite: Ling 330 or ELang 223.
Introduction to phonology and morphology in the world's languages, emphasizing the analysis of English.

430. Theoretical Syntax. (3:3:0) Prerequisite: ELang 223 or Ling 330.
Theoretical comparison and contrast of different sentence types. Methods of argument to develop and critique generative theories of lexical categories, grammatical roles, and syntactic structure.

440. Understanding Language Acquisition. (2:2:0) Prerequisite: ELang 223 or Ling 230; ElEd 450 or ScEd 450.
Processes and variables in native- and second-language development. How teachers can foster efficient acquisition of language, cognitive, and academic skills in second-language environments.

450. Introduction to Historical-Comparative Linguistics. (3:3:0) Prerequisite: Ling 330.
Theory and method of language change via comparison of daughter languages and reconstruction of their ancestral language: phonological, morphological, semantic, and lexical.

460. Assessment for Linguistically Diverse Students. (2:2:0) Prerequisite: ELang 223 or Ling 230; ElEd 450 or ScEd 450.
Fundamental concepts in testing, use/interpretation of current instruments for language/academic assessment, appropriate placement of linguistically diverse students, and developing classroom language assessments.

471. Methods and Strategies for Developing Second-Language Skills. (2:2:0.5) Prerequisite: ELang 223 or Ling 230; ElEd 450 or ScEd 450.

Instructional methods, strategies, and materials for integrating curriculum content and language instruction. Teaching, creating, and adapting lesson materials in a multicultural context.

472. Developing Second-Language Literacy Skills. (2:2:0.5) Prerequisite: ELang 223 or Ling 230; ElEd 450 or ScEd 450.

Instructional strategies, methodologies, and materials for developing reading and writing skills in a second language. Developing cognitive academic language proficiency and integrating multiple cultural perspectives.

480. Problems in Translation. (3:3:0) Prerequisite: proficiency in a second language.

History, theory, and practice of human and machine translation.

490. Senior Seminar. (2:2:0)Prerequisite: Ling 330.

Reading and discussing major issues in linguistics.

496R. Academic Internship: TESOL. (1–9:0:0 ea.) Prerequisite: ELang 223 or Ling 230; Ling 440; Ling 471 or 472.

Individualized work or volunteer experience in a domestic or international setting. International internships must be coordinated through Study Abroad. All internships require prior departmental approval.

500-Level Graduate Courses (available to advanced undergraduates)

500. Introduction to Research in TESOL. (3:3:0) Prerequisite: admission to TESOL graduate certificate or language acquisition MA program.

Research questions in language teaching and learning, literature review, research design, data collection, and interpretation. Understanding research methods as used in others' studies.

521. Phonology. (3:3:0) Prerequisite: Ling 330.

Distinctive values of speech sounds: their function in the communicative process. Analysis of phonological data via postulation of underlying forms and derivational rules.

535. Semantics. (3:3:0) Prerequisite: Ling 330.

Theory and practice of semantic analysis with special emphasis on Jakobsonian and Peircean semiotics.

540. Language Acquisition. (3:3:0) Prerequisite: Ling 330 or equivalent.

First- and second-language acquisition viewed in light of psycholinguistics and sociolinguistics.

545. Psycholinguistics. (3:3:0) Prerequisite: ELang 223 or Ling 330 or equivalent.

How the mind interprets, stores, retrieves, and produces language. Anatomical structures and physiological processes of the brain dealing with language.

550. (Ling-Anthr) Sociolinguistics. (3:3:0)

Research and theory in anthropological linguistics and sociolinguistics.

551. (Ling-Anthr) Anthropological Linguistics. (3:3:0)

Language in culture and society: development, typology, and description.

555. Teaching Culture. (3:3:0)

What culture is, how it affects language learners and teachers, and development of U.S. lifestyle patterns.

558. Historical-Comparative Linguistics. (3:3:0) W, Sp Prerequisite: Ling 450 or equivalent.

Learning theory and method of language change via comparing daughter languages and reconstructing ancestral languages. Language universals and typology.

577. TESOL Methods and Materials. (4:4:1) Prerequisite: ESL 404 or native English speaker.

Foundation course surveying concepts, procedures, and techniques in second/foreign language teaching methodology and materials selection. Includes observing actual classes and participating in a mentored teaching practicum.

579. TESOL Student Teaching. (3:0:8) Prerequisite: Ling 577 and departmental consent.

Sustained and supervised practice teaching at the English Language Center.

580R. Problems in Linguistics and Applied Linguistics. (1–3:3:0 ea.) On dem.

Advanced research in language acquisition, sociolinguistics, psycholinguistics, linguistics field study, applied linguistics.

581. Natural Language Processing. (3:3:0) F Prerequisite: good programming skills in at least one language (preferably LISP, Prolog, C, C++, Perl, or Java) and a knowledge of basic, discrete math. Upper-division linguistics/computers and the humanities students with less programming may enroll with instructor's consent.

Intensive overview of natural language processing, including computational techniques, hands-on experience with linguistic technologies and corpora, language modeling approaches, and readings from current research.

590R. Readings in Linguistics. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.

Individual study of current linguistic literature. Occasional discussion sessions with instructor and other class members. Pass/fail grade only.

595. Research Design in TESOL. (1:2:0) Prerequisite: Ling 500; admission to TESOL MA (thesis option) or language acquisition MA program; preliminary draft of rationale and review of literature for MA thesis.

Research design options for examining language acquisition and teaching. Designing research and writing the third chapter of the MA thesis. Students may enroll concurrently for up to 2 hours of Ling 699R (thesis) credit.

596. Research Design in Linguistics. (1:2:0) Prerequisite: admission to linguistics MA program.

Research options in linguistics. Selecting thesis topic and writing first chapters of MA thesis. Students may enroll concurrently for up to 2 hours of Ling 699R (thesis) credit.

599R. Academic Internship: Linguistics. (1–9:9:0 ea.) On dem.

On-the-job experience under faculty supervision, with department approval.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

American Sign Language (ASL)

Undergraduate Courses

(Available only through Evening Classes.)

101, 102. Conversation ASL, Parts 1 and 2. (4:4:1 ea.)

Basic ASL skills, both receptive and expressive. Basic conversation skill, emphasizing vocabulary building and pragmatics. Introduction to deafness and ASL.

201. ASL Grammar. (4:4:0)

Basic study of ASL structure and syntax. Beginning transcription.

202. Advanced ASL Grammar. (4:4:0) W even yr. Prerequisite: ASL 201.

Advanced ASL structure, including conversational skills.

301. Deaf Culture. (3:3:0)
Society and culture of the deaf community. Required course for obtaining language credit by examination.

302. Deaf Literature. (3:3:0) W on dem. Prerequisite: ASL 301.
Various genres of deaf literature. Introduction to analysis of ASL literary works.

431. Interpreting 1. (4:4:1) Independent Study also.
Building basic interpreting skills. Code of Ethics, interpreting protocol, and interpreting issues.

432. Interpreting 2. (4:4:1)
Various interpreting models; the interpreting process; building and applying interpreting skills.

Linguistics and English Language Faculty

Professors
Anderson, Neil J. (1997) BA, MA, Brigham Young U., 1979, 1980; PhD, U. of Texas, Austin, 1989.
Eggington, William G. (1988) BA, Brigham Young U.—Hawaii, 1975; MA, PhD, U. of Southern California, 1981, 1985.
Henrichsen, Lynn E. (1992) BA, MA, Brigham Young U.1973, 1975; EdD, U. of Hawaii, Manoa, 1987.
Luthy, Melvin J. (1971) BS, Utah State U., 1962; PhD, Indiana U., Bloomington, 1967.
Manning, Alan D. (1994) BA, Brigham Young U., 1984; PhD, Louisiana State U., 1988.
Melby, Alan K. (1977) BS, MA, PhD, Brigham Young U., 1973, 1974, 1976.
Robertson, John S. (1977) BA, MA, Brigham Young U., 1967, 1970; PhD, Harvard U., 1976.
Skousen, Royal (1979) BA, Brigham Young U., 1969; MA, PhD, U. of Illinois, 1971, 1972.

Teaching Professor
Probst, Glen W. (1980) BA, MA, Brigham Young U., 1961, 1966; PhD, Ohio State U., 1969.

Associate Professors
Chapman, Donald W. (1995) BS, MA, Brigham Young U., 1987, 1990; PhD, U. of Toronto, Canada, 1995.
Graham, Charles Ray (1980) BA, MA, Brigham Young U., 1967, 1969; PhD, U. of Texas, Austin, 1977.
Hallen, Cynthia L. (1991) BA, MA, Brigham Young U., 1980, 1982; PhD, U. of Arizona, 1991.
Oaks, Dallin D. (1990) BA, Brigham Young U., 1984; MA, U. of Utah, 1986; PhD, Purdue U., 1990.

Associate Teaching Professors
Adams, Linda H. (1979) BA, MA, Brigham Young U., 1963, 1968.
Dant, Doris R. (1989) BA, MA, Brigham Young U., 1966, 1972.
Thorne, Melvin J. (2000) BA, Brigham Young U., 1976; MA, PhD, U. of Kansas, 1980, 1986.

Assistant Professors
Baltes, Paul J. (1993) BA, Arizona State U., 1988; MA, PhD, Purdue U., 1991, 1995.
Bowie, David (1999) BA, U. of Maryland, College Park, 1994; PhD, U. of Pennsylvania, 2000.
Elzinga, Dirk.(2001) BA, MA, U. of Utah, 1992, 1993; PhD, U. of Arizona, 1999.
Gardner, Dee (1999) BA, MA, Brigham Young U., 1983, 1994; PhD, Northern Arizona U., 1999.
Lonsdale, Deryle W. (1997) BSc, U. of Alberta, Canada, 1981; MS, PhD, Carnegie Mellon U., 1992, 1997.
Shelley, Monte (1976) PhD, Brigham Young U., 1976.
Tanner, Mark W. (1993) BA, U. of Utah, 1982; MA, U. of Southern California, 1985; PhD, U. of Pennsylvania, 1991.

Assistant Teaching Professor
Strong-Krause, Diane (1979) BA, MA, PhD, Brigham Young U., 1975, 1976, 2001.

Special Instructors
Eslinger, Catherine (2000) BA, MA, Brigham Young U., 1997, 2000.
Johnson, Cary (2002) BA, Adams State Coll., 1998; MA, Brigham Young U., 2002.
Vidal, Kari (2002) BA, Brigham Young U.—Hawaii, 1996; MA, Brigham Young U., 2002.
Wilson, Russell (2000) BA, MA, Brigham Young U., 1997, 2000.
Wolfersberger, Mark (2001) BA, MA, Brigham Young U., 1998, 2001.

Emeriti
Blair, Robert W. (1959) BA, MA, Brigham Young U., 1955, 1957; PhD, Indiana U., Bloomington, 1964.
Brown, Cheryl (1975) BA, MA, Utah State U., 1967, 1971; TESL Cert., Brigham Young U., 1974; PhD, U. of California, Los Angeles, 1983.
Cox, Soren (1955) BA, MA, Brigham Young U., 1952, 1956; PhD, U. of Minnesota, 1964.
Madsen, Harold S. (1970) BA, MA, U. of Utah, 1953, 1960; PhD, U. of Colorado, 1965.
Norton, Don E. (1967) BA, MA, Brigham Young U., 1959, 1961.

Associate Linguists

The following are linguists in other departments who frequently teach linguistics courses in their own department or in the Department of Linguistics and English Language and who also serve on graduate and other committees for the department.

Asay, Devin (Humanities Research Center)
Belnap, R. Kirk (Asian and Near Eastern Languages)
Bourgerie, Dana (Asian and Near Eastern Languages)
Bush, Charles D. (Humanities Research Center)
Christensen, Matthew (Asian and Near Eastern Languages)
Clegg, J. Halvor (Spanish and Portuguese)
Fails, Willis (Spanish and Portuguese)
Hart, David Kay (Germanic and Slavic Languages)
Hendricks, Harold (Humanities Research Center)
Jarvis, Donald K. (Germanic and Slavic Languages)
Jones, Randall L. (Germanic and Slavic Languages)
Larson, Jerry W. (Humanities Research Center)
Lund, Randall J. (Germanic and Slavic Languages)
Meredith, R. Alan (Spanish and Portuguese)
Parkinson, Dilworth B. (Asian and Near Eastern Languages)
Russell, Robert A. (Asian and Near Eastern Languages)
Smith, Kim L. (Humanities Research Center)
Smith, Melvin R. (Humanities Research Center)
Teemant, Annela (Teacher Education)
Turley, Jeffrey S. (Spanish and Portuguese)
Warnick, Paul (Asian and Near Eastern Languages)
Watabe, Masakazu (Asian and Near Eastern Languages)

Lithuanian

See Germanic and Slavic Languages.

Management

Marriott School of Management

Dean: Ned C. Hill
730 TNRB, (801) 422-4121

Associate Dean: W. Steve Albrecht
730 TNRB, (801) 422-3154

Associate Dean: Lee Tom Perry
730 TNRB, (801) 422-4618

Undergraduate Director: Joan Young
480 TNRB, (801) 422-2435

Marriott School of Management Advisement Center
460 TNRB, (801) 422-4285

Admission to Degree Program

The degree programs in the Marriott School of Management carry special enrollment limitations. Please see the advisement center for specific details.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Management
- Emphases:
  - General Business
  - Entrepreneurship
  - Finance
  - Financial Services
  - Marketing Management
  - Supply Chain, Services, and Operations Management

Minor Management

Students should see their college advisement center for help or information concerning the undergraduate programs.

For information on accounting or information systems degrees, see School of Accountancy and Information Systems.

Graduate Programs and Degrees

MAcc	Professional Accountancy
MAcc	Tax
MBA	Business Administration
MISM	Information Systems Management
MOB	Organizational Behavior
MPA	Public Administration

Individual program brochures are available from the Marriott School of Management, 730 TNRB, Brigham Young University, Provo, UT 84602-3113. Also, refer to the BYU 2003–2004 Graduate Catalog.

The Discipline

Courses are designed to create opportunities for students to develop and apply their analytical and decision-making abilities. For this reason, the Marriott School programs make extensive use of faculty expertise, case studies, student projects, and internships.

Career Opportunities

Specific job descriptions are many and varied. Some examples are: banker, consultant, financial analyst, credit analyst, real estate broker, financial planner, human resource specialist, employee benefit specialist, personnel officer, business systems consultant/analyst, sales representative, account executive, research specialist, marketing analyst, management trainee, buyer, merchandiser, production manager, technical sales person, inventory manager, logistics manager, materials supervisor.

General Information

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

Students are encouraged to apply to the Marriott School of Management at the beginning of their sophomore year, as soon as they have completed the pre-management core courses.

Because of controlled enrollments in management programs, the competition for acceptance is keen. Those choosing to enter these majors should decide early, plan their schedules carefully, be aware of all the requirements, and stay informed about any changes by checking often with the Marriott School of Management Advisement Center.

Students interested in either accounting, information systems, or management as a major must make application for the management major. A separate application to the School of Accountancy and Information Systems is necessary for those seeking an accounting or information systems major. Students not

accepted into the program should work closely with advisement personnel to select a new major outside the Marriott School.

Requirements for application are:

1. Cumulative GPA must be at least 3.0 in the pre-management courses, with no more than one repeat for each class. No grade lower than a C– will be acceptable. Students must have an overall GPA of at least 3.0 to apply to the Marriott School of Management.

   Not every student meeting the minimum requirements is guaranteed acceptance into the undergraduate program.
2. Demonstrate a knowledge of computer skills, including PowerPoint and spreadsheet analysis.

   Students may demonstrate PowerPoint and spreadsheet skills with either a minimum grade of B in an equivalent transfer course or a P grade in MCom 100 and ISys 100.

Major Requirements for All Management Emphases

1. No more than 12 semester hours of upper-division transfer credit will be accepted toward the major and only 6 hours beyond Management Core 2. No transfer courses will be accepted for the Integrated Management Core courses.
2. Only courses sufficient for a single emphasis are permitted.
3. Complete the following Premanagement Core courses:
   Acc 200.
   Econ 110.
   ISys 100.
   Math 119.
   MCom 100.
   Stat 221.

   Note 1: Premanagement Core courses must be completed or in concurrent process of being completed before a student enrolls in Management Core 1 courses.

   Note 2: Before registering for Management Core 1 courses, students must complete and submit the "continuance" form to the college advisement center. Based on student performance to date, permission may be granted to take some restricted major-only Management Core 1 courses.
4. Apply and be formally accepted into the program.
5. Complete the following Management Core 1 courses:
   Acc 210, 241.
   ISys 201.
   MCom 320.
   And complete one course from the following:
   BusM 371R, 380, 382, 384.

   Note: Management Core 1 courses must be completed or in concurrent process of being completed before a student enrolls in Management Core 2 courses.
6. Complete the following management Core 2 courses:
   BusM 320, 321.
   MCom 321.
   PMgt 385.
   And complete one course from the following:
   ManEc 300, 358, 376, 387.
   And complete one course from the following:
   ManEc 301, 453.
7. Complete the following Integrated Management Core courses:
   BusM 301, 322, 341, 361.
   OrgB 321.
   RelC 492 (2 hours required).
8. Complete the following after BusM 301 has been completed:
   BusM 499.
9. Complete the requirements for *one* emphasis from those listed below.

BS Management: General Business Emphasis

(68 hours*)

The general business, or open, emphasis is available to students wishing to design their own program to meet specific goals such as working in a family business or preparing for a graduate program.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete four Marriott School 300- and 400-level major courses that meet specific student needs.

*Hours include courses that may fulfill GE or university requirements.

BS Management: Entrepreneurship Emphasis

(68 hours*)

The entrepreneurship emphasis is designed to acquaint students with the problems commonly encountered when starting, growing, and harvesting business ventures. Emphasis is on the entrepreneurial career and perspective, not on one-shot ventures. Functional topics have already been taught in the function areas and are mentioned in entrepreneurship only when a different perspective is needed.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete one of the following specialization courses:
   BusM 478, 479.
3. Complete two courses from the following:
   BusM 454, 471, 475.
   OrgB 531.
4. Complete 3 elective hours from upper-division Marriott School major courses.

*Hours include courses that may fulfill GE or university requirements.

BS Management: Finance Emphasis (71 hours*)

The course work offered in this area is designed, first, to familiarize business students with the elements of financial management and, second, to provide specialized work for those who would like to begin their careers in corporate finance. The graduate from this program will be prepared for an entry-level position as a corporate financial analyst. Analysts are responsible for work on business plans, annual budgets, capital budgeting and investment decisions, and financial forecasting.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following specialization courses:
   Acc 440.
   BusM 401, 410.
3. Complete two courses from the following:
   BusM 405, 407, 411, 413, 418, 430**, 432, 475, 479†.
   ManEc 453.

Note 1: Finance students are encouraged to select ManEc 453 to satisfy the macroeconomics requirement in the major courses.

Note 2: Finance internships are encouraged.

*Hours include courses that may fulfill GE or university requirements.

**For students focusing on international finance.

†For students focusing on entrepreneurial finance.

BS Management: Financial Services Emphasis (71 hours*)

The course work offered in this area is designed, first, to familiarize business students with the elements of financial markets, institutions, and intermediation and, second, to provide specialized work for those who would like to begin their careers in financial services. The graduate from this program will be prepared for an entry-level position as an analyst. Investment management opportunities include work as a portfolio or securities analyst. Real estate opportunities include work as a mortgage analyst within a corporation or in an investment management setting. Insurance companies and banks regularly hire analysts with a good training in investments and risk management.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following specialization courses:
   Acc 440.
   BusM 410.
3. Complete three courses from the following:
   Acc 320.
   BusM 401, 405, 406, 407, 411, 412, 413, 414, 418, 432, 454.

   Note: Students can specialize in real estate (BusM 413, 414), investments (BusM 411, 412), or financial planning and insurance (BusM 406, 418) by selecting a set of two courses. Students are limited to only one academy class (BusM 406, 412, or 414).

Note 1: Financial services students are encouraged to select ManEc 453 to satisfy the macroeconomics requirement in the major courses.

Note 2: Financial services internships are encouraged.

*Hours include courses that may fulfill GE or university requirements.

BS Management: Marketing Management Emphasis (71 hours*)

The marketing emphasis is designed to prepare students for marketing management responsibilities, product/brand management, industrial and consumer products sales management, market analysis, and entrepreneurial activities both in the U.S. and in other areas of the world.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following specialization courses:
   BusM 442, 459.
3. Complete three courses from the following:
   BusM 430**, 431, 440, 441, 444, 448, 450, 454, 455, 456, 457, 458R, 469.

*Hours include courses that may fulfill GE or university requirements.

**For students focusing on international marketing.

BS Management: Supply Chain, Services, and Operations Management Emphasis (71 hours*)

Supply chain management involves the control and coordination of materials and services from the original point of origin to the final point of consumption. Increasing competitiveness through higher quality, lower cost, greater responsiveness, and unique innovation is a critical aspect of supply chain management. Likewise, managing across boundaries within the firm and throughout the channel is emphasized. Course work is designed to prepare students for managerial positions in manufacturing and service industries in the areas of purchasing, operations, logistics, customer service, and supply chain management.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following specialization courses:
   BusM 466, 469.
3. Complete three courses from the following:
   BusM 450, 454, 462, 463, 464, 465.

*Hours include courses that may fulfill GE or university requirements.

Minor Management (22 hours*)

Minor Requirements

1. No D credit is allowed in minor courses.
2. Complete the following prerequisite courses:
   Acc 200 or 201.
   Econ 110 (or equivalent).
   Math 110 (or equivalent).
   Stat 221.

   Note: students should complete prerequisite courses before taking functional courses.
3. Complete the following Marriott School functional courses:
   BusM 300, 340.
   OrgB 320.
4. Complete one course from the following:
   BusM 371R, 380, 382, 384.
5. No more than one transfer class will be accepted as a substitute for OrgB 320, BusM 300, 340.

*Hours include courses that may fulfill GE or university requirements.

Business Management

J. Michael Pinegar, Chair
660-A TNRB, (801) 422-3088

Accessibility of Business Management Courses

1. BusM 200-level courses are open to all students.
2. BusM 300, 340, 371R, 380, 382, 384, 430, and 456 are open to all students. All other BusM 300-level courses are closed except to students who have been formally accepted into the Marriott School or the School of Accountancy and Information Systems or who have written approval from the director of the institute or the associate dean.
3. Non–Marriott School students may take 400-level courses for which they have proper prerequisites and the undergraduate director's written permission.

Business Management (BusM)

Undergraduate Courses

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: consent of both department associate director and cooperative education coordinator; declared Marriott School major.
Supervised experience for nonbusiness students either in service or business-related work.

200. Personal Finance. (3:3:0) Independent Study also.
Practical course in money management and utilizing savings.

205R. Planning for Financial Security at Retirement. (1:1:0)
Fundamentals of good financial management necessary for successful retirement.

213R. Topics in Real Estate. (1–3:Arr.:0 ea.)
Selected current topics in real estate.

300. Financial Management. (3:3:0) For nonmanagement majors. Independent Study also. Prerequisite: Acc 200 or equivalent.
Emphasizes financial statement analysis, financial planning, sources of financing, working capital management, risk and return, and valuation.

301. Financial Management. (3:3:0) Prerequisite: Premanagement and Management cores and full acceptance into the Marriott School upper-division major.
Financial management from the viewpoint of the business manager emphasizing profitability, liquidity, and long-range financial planning.

320. Career Orientation and Preparation. (0.5:1:0) Prerequisite: acceptance into Marriott School.
Student orientation and preparation for careers in management. Must be taken first semester in Marriott School.

321. Mentor Program. (0.5:0:0) Prerequisite: acceptance into Marriott School.
Discussions with outside mentor about career opportunities. Must be taken first semester in Marriott School.

322. Management Suite. (1:1:0) Prerequisite: acceptance into Marriott School.
Readings and ethics course combining spiritual and secular business topics.

340. Marketing Management. (3:3:0) For nonmanagement majors. Independent Study also.
Emphasizes marketing's role in society and the firm, marketing opportunities, the consumer market, and management of the marketing mix.

341. Marketing Management. (3:3:0) Prerequisite: Premanagement and Management I cores and full acceptance into the Marriott School upper-division major.
Market segmentation, product service, promotion, channel, pricing strategies. Marketing principles in consumer and industrial markets, profit and nonprofit organizations, domestic and international companies, and small and large firms.

360. Operations Management. (3:3:0) For nonmanagement majors.
Overview of the operations area including planning, scheduling, inventory management, quality control, and internal flow of manufacturing information.

361. Operations Management. (3:3:0) Prerequisite: Premanagement and Management 1 cores and full acceptance into the Marriott School upper-division major.
Overview of operations manager's decision areas. Designing, controlling, and managing production and delivery of product or service to the customer.

371R. Entrepreneurship Lecture Series. (1:1:0 ea.)
Lectures by successful entrepreneurs on subjects significant to entrepreneur-type opportunities.

372. Basic Entrepreneurship Skills. (3:3:0) For non-Marriott School of Management students.
Practical aspects of business formation and growth; key skills and principles needed to successfully start up and grow a business.

373R. Entrepreneur Field Studies. (1–3:Arr.:0 ea.) F, W Prerequisite: completion of department core courses.

380. Executive Lectures. (1:1:0)
Lectures by top executives on subjects significant to executive leadership.

382. Financial Services Lecture Series. (1:1:0)
Lectures by executives on financial services topics.

384. E-Business Lecture Series. (1:1:0)
Lectures by e-business leaders on subjects significant to e-business-type opportunities.

389R. Current Topics in Leadership. (1:15:0 ea.)
Lectures by leading experts (top executives, faculty, etc.) on current leadership topics dealing with business, organizations, communities, and families.

401. Advanced Financial Management. (3:3:0) Prerequisite: BusM 301; major status.
Capital budgeting, cost of capital, capital structure/dividends, mergers and acquisitions, and current financial problems.

405. Management of Financial Institutions. (3:3:0) Prerequisite: BusM 301; major status.
Management problems of commercial bank and nonbank financial institutions, emphasizing balance sheet management, regulation, and the process of intermediation.

406. Insurance and Financial Services Academy. (3:3:0) Prerequisite: major status, BusM 301.
The process of identifying, measuring, and dealing with personal risk. Introduction to property/casualty as well as life and health insurance issues and products.

407. Risk Management. (3:3:0) F, W Prerequisite: BusM 301; major status.
Management of risk exposures in a business setting. The process of identifying, measuring, and dealing with risk. Coverage includes both traditional insurable risks and financial risks.

410. Investments. (3:3:0) Prerequisite: BusM 301; major status.
Security markets, security analysis, and portfolio management.

411. Advanced Investments. (3:3:0) Prerequisite: BusM 301, 410; major status.
Current investment literature, efficient markets, modern portfolio theory, capital assets pricing, options pricing theory.

412. Investments Academy. (3:3:0) F Prerequisite: major status, BusM 301.
Applying financial principles to practical investment problems; insights into the investment banking profession.

413. Real Estate Administration. (3:3:0) Prerequisite: BusM 301; major status.
Principles of property investments: determining value, financing arrangements, and marketing and management problems.

414. Real Estate Academy. (3:3:0) F Prerequisite: major status, BusM 301.
Applying financial and real estate principles to practical property investments; insights into the real estate profession.

418. Financial Planning. (3:3:0) Prerequisite: BusM 301; major status.
Applying financial principles to household decision making, stressing integration between areas. Income tax and estate planning, retirement, investments, portfolio management, and risk management.

430. Introduction to International Business. (3:3:0)
Complexities confronting U.S. firms and their management in international environments. Emphasizes functional and planning areas, including organization, market research, financial analysis.

431. International Marketing. (3:3:0) Prerequisite: BusM 341, 430; major status.

International market entry strategies, export marketing, joint ventures, and other market entry modes. Regional/National markets; cultural, political, legal environments. Negotiations, trade financing, marketing mix.

432. International Corporate Finance. (3:3:0) Prerequisite: BusM 301, 430; major status.

Financial aspects of multinational corporations operating within an international environment; direct foreign investment, foreign exchange regulations, capital markets, etc.

440. Database Marketing: Mining and Analysis. (3:3:0) Prerequisite: BusM 341; major status.

Key issues in managing and developing online marketing databases for segmenting markets and developing marketing tactics. In-depth development of data mining techniques and advanced statistical analysis.

441. High-Tech Marketing. (3:3:0) Prerequisite: BusM 341; major status.

Strategies in managing high-tech products and services, including the role of promotion, target selection, pricing, product development, and connecting to customers.

442. Marketing Research. (3:3:0) Prerequisite: BusM 341; major status.

Concepts and methodology for conducting marketing research. Emphasis on solving problems faced by the marketing manager. Consulting research project required.

444. Consumer Behavior. (3:3:0) Prerequisite: BusM 341; major status.

Mental and emotional processes and physical actions that people engage in when selecting, purchasing, using, and discarding products and services to satisfy consumer needs and desires.

448. Competitive Intelligence. (3:3:0) Prerequisite: major status.

Overview of the intelligence process including information collection, intelligence analysis, dissemination, ethics, and establishing the process from a managerial perspective.

450. Business Negotiations and Marketing. (3:3:0) Prerequisite: major status.

Developing negotiation techniques relative to business and other life situations.

454. Professional Selling and Sales Management. (3:3:0) Prerequisite: BusM 341; major status.

Concepts of professional selling and sales management including personal selling skills; strategic role of personal selling; organizing, directing, controlling, and evaluating the sales force.

455. Promotion Management. (3:3:0) Prerequisite: BusM 341; major status.

Strategies in promoting business and nonbusiness products, services, and institutions, including the role of promotion, target selection, media and copy decisions, and marketing research.

456. Retailing Management. (3:3:0) Prerequisite: BusM 341 (340 for nonmajors).

Selection, location, and management of retail stores and systems, emphasizing profitability and integration of accounting, finance, and economic concepts and tools.

457. Internet Marketing of Products and Services. (3:3:0) Prerequisite: major status.

Integrates product, research, sales, and promotional strategy and concepts into an overall marketing plan for developing an Internet business. Term project developing an Internet business required.

458R. Seminar in Marketing Management. (3:3:0 ea.) Prerequisite: BusM 340 or 341.

Selected marketing issues, quantitative techniques and forecasting, advertising management, and industrial management.

459. Marketing Strategy. (3:3:0) Prerequisite: BusM 301, 341, 442; major status.

Integration of finance, marketing, and case studies in economic concepts and techniques in marketing decision making and planning.

461. Operations Analysis and Problem Solving. (3:3:0) Prerequisite: BusM 361; major status.

Methods and tools necessary for analyzing and solving problems associated with operations, services, and supply chain management.

462. Services Management. (3:3:0) Prerequisite: introductory operations management course or instructor's consent; major status.

Management principles and characteristics of service industries and service aspects of supply chains: sources of strategic advantage; process analysis and tools; quality.

463. Quality Management. (3:3:0) Prerequisite: BusM 361; major status.

Concepts of quality management, strategic issues, philosophies, and tools used to implement and control quality.

464. Integrated Product Development. (3:3:0) Prerequisite: major status.

Strategies, processes, tools, and methods in product and process development, emphasizing initial stages of market and competitive assessment to concept development.

465. Global Supply Chain Management. (3:3:0) Prerequisite major status.

Design and management of the global value chain. Emphasizes global supplier selection and management, manufacturing, network design, international logistics and distribution, and alliance coordination.

466. Purchasing and Supply Management. (3:3:0) Prerequisite: BusM 361; major status.

Focuses on upstream supply chain activities of supplier selection, management, and development. Negotiation, costing, product development, and commodity analysis.

469. Integrated Supply Chain Management. (3:3:0) Prerequisite: major status.

Integrative and creative problem solving in designing and managing cohesive value-added conversion/transformation systems.

471. Entrepreneurial Perspective. (3:3:0) Prerequisite: major status.

Living case study contrasting entrepreneurial with managerial perspective. Topics include making entrepreneurial vision a reality, ethics/integrity, startups/acquisitions, spouse/children, associates, professionals, dealmaking, entrepreneurship myths.

475. Financing New Ventures. (3:3:0) Prerequisite: BusM 301, 341, 361, OrgB 321; major status.

Concepts and skills of entrepreneurship, emphasizing how new and emerging companies are financed. Applying functional tools to case situations.

478. E-Business Technology and Entrepreneurship. (3:3:0) Prerequisite: major status.

Key issues and problems facing managers in start-up e-business and IT companies. Team-taught by professors and entrepreneurs; particularly helpful for students starting IT businesses.

479. (BusM-Mfg) Creating and Managing New Ventures. (3:3:0) Prerequisite: for management majors: BusM 301, 341, 361; major status. For engineering majors: management minor status; senior status.

Key issues and problems facing managers in start-up companies. Team-taught by professors and entrepreneurs; particularly helpful for students starting businesses.

488. Agribusiness Management 1. (3:3:0) Prerequisite: Acc 200, Econ 110; BusM 300 or 340 or concurrent enrollment.
Concepts, tools, and approaches to understanding competitive forces and the development of sustainable competitive advantage for firms in the food, fiber, and horticulture industries.

489. Agribusiness Management 2. (3:3:0) Prerequisite: Acc 200 (or equivalent), Econ 110 (or equivalent), BusM 340.
Developing and implementing marketing plans and programs for companies participating in the value chain of agribusiness industries.

490R. Topics in Business Management. (1–3:Arr.:0 ea.)
Current business-related topics varying by semester and section.

495R. E-Business Projects. (3:3:0) Prerequisite: instructor's consent.
Consulting/Field studies projects in e-business.

496R. Academic Internship. (1–3:Arr.:Arr. ea.)
Supervised experience for business majors either in service or business-related work. Opportunity to link learning with practical field applications.

499. Strategic Management. (3:3:0) Prerequisite: BusM 301; major status.
Concepts, tools, and approaches to understand competitive forces and to systematically and consistently develop sustainable competitive advantages.

Business Management Faculty

Professors

Bryson, Phillip J. (1983) BA, U. of Utah, 1964; PhD, Ohio State U., 1967.
Clarke, Darral G. (1985) BS, U. of Utah, 1965; MS, Ohio State U., 1967; PhD, Purdue U., 1972.
Fawcett, Stanley E. (1996) BS, MBA, MA, Brigham Young U., 1985, 1987, 1988; PhD, Arizona State U., 1990.
Geurts, Michael D. (1975) BS, MBA, U. of Utah, 1963, 1965; PhD, U. of Oregon, 1972.
Giauque, William C. (1977) MBA, DBA, Harvard U., 1968, 1972; BS, California Inst. of Technology, 1963.
Heaton, Hal B. (1982) BS, MBA, Brigham Young U., 1975, 1977; MA, PhD, Stanford U., 1978, 1982.
Hill, Ned C. (1987) BS, U. of Utah, 1969; MS, PhD, Cornell U., 1971, 1976.
Hunt, H. Keith (1975) BS, MBA, U. of Utah, 1961, 1962; PhD, Northwestern U., 1972.
Longmore, Dean (2001) BS, Brigham Young U., 1967; MBA, U. of Utah, 1968; PhD, U. of Missouri, Columbia, 1980.
McKinnon, Gary F. (1969) BS, MBA, U. of Utah, 1962, 1963; PhD, U. of Texas, Austin, 1968.
McQueen, Grant R. (1989) BA, MBA, Brigham Young U., 1981, 1984; PhD, U. of Washington, 1989.
Nadauld, Stephen D. (1976) BA, Brigham Young U., 1967; MBA, Harvard Business School, 1969; PhD, U. of California, Berkeley, 1978.
Pinegar, J. Michael (1988) BA, Brigham Young U., 1973; MBA, PhD, U. of Utah, 1979, 1982.
Rhoads, Gary K. (1992) BS, MBA, Idaho State U., 1978, 1982; PhD, Texas Tech. U., 1988.
Smith, Scott M. (1981) BS, Brigham Young U., 1971; MBA, Michigan State U., 1973; PhD, Pennsylvania State U., 1979.
Stone, Bernell K. (1986) BS, Duke U., 1964; MS, U. of Wisconsin, 1966; PhD, Massachusetts Inst. of Technology, 1968.
Swenson, Michael J. (1989) BS, Brigham Young U., 1980; MBA, U. of Utah, 1981; PhD, U. of Oregon, 1989.
Swinyard, William R. (1978) BS, Brigham Young U., 1965; MBA, U. of Michigan, 1967; PhD, Stanford U., 1976.
Thorley, Steven R. (1991) BS, MBA, Brigham Young U., 1979, 1982; PhD, U. of Washington, 1991.

Associate Professors

Crawford, Robert G. (1972) BA, Brigham Young U., 1967; MS, PhD, Carnegie-Mellon U., 1971, 1975.
Dishman, Paul (2001) BFA, Trinity U., 1977; MBA, PhD, U. of North Texas, 1987, 1992.
Holmes, Andrew L. (1996) BBA, MS, Texas A&M U., 1986, 1988; PhD, U. of Houston, 1992.
Koller, Roland H. (1976) BS, U. of Utah, 1962; MA, PhD, U. of Wisconsin, 1968, 1969.
Lee, Terry Nels (1970) BS, U. of Utah, 1963; MBA, Brigham Young U., 1966; PhD, U. of Washington, 1973.
Merrill, Craig B. (1993) BA, Brigham Young U., 1989; MA, PhD, U. of Pennsylvania, 1992, 1994.
Nelson, Ray D. (1985) BA, Brigham Young U., 1975; MA, PhD, U. of California, Berkeley, 1979, 1981.
Sampson, Scott E. (1996) BA, Brigham Young U., 1988; MBA, PhD, U. of Virginia, 1991, 1993.
Sawaya, William J., Jr. (1978) BS, U. of Wyoming, 1967; MS, PhD, Arizona State U., 1969, 1971.
Seawright, Kristie W. (1993) BS, Brigham Young U., 1977; BS, MBA, PhD, U. of Utah, 1987, 1989, 1993.
Sudweeks, Bryan L. (2000) BA, MBA, Brigham Young U., 1980, 1982; PhD, George Washington U., 1987.
Whitlark, David B. (1989) BA, U. of Utah, 1978; MBA, Cornell U., 1985; PhD, U. of Virginia, 1988.
Wilson, Brent D. (1982) BA, Weber State Coll., 1969; MBA, Northwestern U., 1971; DBA, Harvard U., 1979.

Assistant Professors

Allred, Chad R. (2002) BS, MBA, Brigham Young U., 1985, 1987; PhD, Purdue U., 2002.
Brau, James (1999) BS, U.S. Military Academy, West Point, 1991; PhD, Florida State U., 1999.
Christensen, Glenn L. (2002) BA, MBA, Brigham Young U., 1994, 1997; PhD, Pennsylvania State U., 2002.
DeRosia, Eric D. (2002) BS, Brigham Young U., 1994; PhD, U. of Michigan Business School, 2002.
Mitton, Todd V. (2000) BA, MBA, Brigham Young U., 1990, 1993; PhD, Massachusetts Inst. of Tech., 2000.
Slade, Barrett A. (2000) BS, MS, Brigham Young U., 1983, 1989; PhD, U. of Georgia, 1997.
Vorkink, Keith P. (2000) BA, Brigham Young U., 1994; MA, PhD, U. of Rochester, 1997, 2000.

Adjunct Associate Professors

Jenkins, James (1979) BS, MS, Brigham Young U., 1965, 1967; MS, PhD, Purdue U., 1970, 1975.
Wooley, Kenneth M. (1979) BA, Brigham Young U., 1969; MBA, PhD, Stanford U., 1971, 1972.

Emeriti

Andrus, Roman R. (1976) BS, Brigham Young U., 1958; MS, PhD, Columbia U., 1959, 1965.
Barnes, Howard W. (1964) AB, Harvard Coll., 1955; MBA, U. of Southern California, 1963; Dr rer pol, Technische Universität Braunschweig, Federal Republic of Germany, 1968.
Blood, Dwight M. (1980) BS, U. of Wyoming, 1953; MS, Montana State U., 1955; MA, PhD, U. of Michigan, 1958, 1963.
Call, Ivan T. (1963) BS, Brigham Young U., 1958; MBA, DBA, Indiana U., Bloomington, 1959, 1969.
Christensen, Edward L. (1953) BS, MS, PhD, U. of Utah, 1938, 1939, 1953.
Cox, Charles M. (1965) BS, Brigham Young U., 1955; MBA, Harvard U., 1961; PhD, U. of Washington, 1978.
Daines, Robert H. (1959) BS, Utah State U., 1956; MBA, Stanford U., 1959; DBA, Indiana U., Bloomington, 1966.
Davies, J. Kenneth (1953) BS, Marquette U., 1945; MS, Brigham Young U., 1950; PhD, U. of Southern California, 1960.
Lambert, William R. (1962) BS, U. of Utah, 1953; MBA, Harvard U., 1962; DBA, Indiana U., Bloomington, 1968.
Murray, Robert B. (1985) BS, Utah State U., 1951; MBA, Harvard U., 1957.
Oveson, Richard M. (1976) BA, Brigham Young U., 1955; MPA, PhD, Harvard U., 1965, 1969.
Pearce, Wayne E. (1982) BS, MBA, U. of Utah, 1960, 1961.
Pritchett, Michael B. (1969) BS, Brigham Young U., 1965; MS, PhD, Purdue U., 1967, 1970.

Rickenbach, J. Dean (1957) BS, Brigham Young U., 1954; MS, Stanford U., 1957; PhD, Indiana U., Bloomington, 1963.
Schill, Ronald Lynn (1971) BS, MBA, U. of Utah, 1962, 1963; PhD, U. of Oregon, 1971.
Smith, Milton E. (1966) BA, MBA, PhD, U. of Utah, 1951, 1961, 1981.

Managerial Economics (ManEc)

Undergraduate Courses

300. Economics of Market Systems. (3:3:0) Independent Study also. Prerequisite: Econ 110.
Decision making, price formation, and economic organization of the firm in market environments.

301. Macroeconomics for Business Decisions. (3:3:0) Independent Study also. Prerequisite: Econ 110.
Models of aggregate economic fluctuations, economic growth, inflation, and interest rates.

358. International Economics. (3:3:0) Prerequisite: Econ 110.
International trade theory and issues, economic integration, trade and development, contemporary trade problems.

375. Public Finance. (3:3:0) Prerequisite: Econ 110.
Analysis of interaction of governments and institutions of a market economy. Tax and revenue policy, evaluation of expenditure policy, and impact of public decisions on businesses and individuals.

376. Government and Business. (3:3:0) Prerequisite: Econ 110.
Interaction of political and economic forces in determining product and asset prices and the distribution of income and wealth.

387. Economics of Strategy. (3:3:0) Prerequisite: major status.
Economic tools influencing the success of strategy (creation and appropriation of value), emphasizing application of economic theory to management of practice.

388. Applied Econometrics. (3:3:0) Prerequisite: intermediate economic theory and a calculus course.
Using economic theory. Utilizing available data and econometric and quantitative models to address practical problems of management, finance, and economics.

453. Money, Banking, and Business. (3:3:0) Prerequisite: Econ 110; BusM 301 or Accounting Junior Core.
Economic analysis of effects of money, banking, and financial institutions on business decisions and aggregate economic activity.

Engineering/Technology Management Degree Programs

See Marriott School of Management in the BYU 2003–2004 Graduate Catalog and the College of Engineering and Technology Advisement Center.

Organizational Leadership and Strategy

Michael P. Thompson, Chair
590 TNRB, (801) 422-2794

Management Communication (MCom)

Undergraduate Courses

100. Computer Presentation Skills. (0.5:0:1)
Basic computer skills focusing on developing presentations. No technical background necessary. Fee.

320. Written Business Communication. (3:3:1) Honors also. Independent Study also. Prerequisite: Engl 115. To be taken before senior year. Not for freshmen.
Principles and procedures of developing business documents, including reports, correspondence, and employment communication. Emphasizes content, organization, writing, and design. Fulfills GE Advanced Writing requirement.

321. Oral Business Communication. (1:1:2) Prerequisite: acceptance into the Marriott School of Management.
Theory and practice, including experience in instructional and persuasive business presentations. Presentations will be videotaped.

490R. Special Topics in Management Communication. (1–3:Arr.:Arr. ea.) Prerequisite: MCom 320, 321.
Special subjects as announced before each semester.

Management Communication Faculty

Professors
Baker, William H. (1970) BS, Southern Utah U., 1969; MS, Brigham Young U., 1970; EdD, Oklahoma State U., 1974.
Perry, Devern J. (1963) BS, MS, Brigham Young U., 1958, 1962; EdD, U. of North Dakota, 1968.
Timm, Paul Roy (1979) BA, State U. of New York, 1968; MA, Ohio U., 1969; PhD, Florida State U., 1977.

Associate Professors
DeTienne, Kristen B. (1991) BA, California State U., 1987; MA, PhD, U. of Southern California, 1990, 1991.
Hanson, Garth A. (1982) BS, MS, Utah State U., 1963, 1965; PhD, U. of Nebraska, 1973.
Thompson, Michael P. (1988) BA, Brigham Young U., 1975; MS, PhD, Rensselaer Polytechnic Inst., 1978, 1985.

Assistant Professors
Hanson, Kaye T. (1989) BA, MA, PhD, Brigham Young U., 1964, 1967, 1983.
LeBaron, Curtis D. (2001) BA, Brigham Young U., 1989; MA, U. of Utah, 1993; PhD, U. of Texas, Austin, 1998.

Emeriti
Ashby, Nadine T. (1960) BA, Brigham Young U., 1936; MA, Colorado State Coll., 1959; PhD, U. of North Dakota, 1971.
Bell, R. DerMont (1957) BS, MS, Brigham Young U., 1955, 1956; PhD, U. of Southern California, 1960.
Hartman, Larry D. (1984) BA, MS, Brigham Young U., 1962, 1963; EdD, Oklahoma State U., 1973.
Howard-Tuten, Janet M. (1969) BS, MS, Northwestern State U., 1965, 1968; EdD, Brigham Young U., 1985.
Nelson, George Edward (1968) BS, MS, U. of Utah, 1965, 1966; EdD, Arizona State U., 1968.
Petersen, Betty J. (1963) BS, Utah State U., 1958; MA, EdD, Columbia U., 1960, 1971.
Stoddard, Ted D. (1969) BS, MS, Brigham Young U., 1962, 1963; EdD, Arizona State U., 1967.

Organizational Behavior (OrgB)

Undergraduate Courses

320. Organizational Effectiveness. (3:Arr.:2) Taught online Independent Study also.
Theories and concepts for creating effective organizations, e.g., individual, group, and organizational processes and human resource functions, including selection, compensation, and performance management.

321. Organizational Effectiveness. (3:2:2) Independent Study also. Prerequisite: for Marriott School of Management majors only.
Theories and concepts for creating effective organizations, e.g., individual, group, and organizational processes and human resource functions, including selection, compensation, and performance management.

327. Human Resource Management. (3:3:0) Independent Study also.
Functions of human resource management: employee selection, wage and salary administration, training and development, employee relations, and human resource planning.

347. Leadership. (3:3:0) Independent Study also.
Principles and practices needed to serve as effective leaders in families, church, community, and work settings—planning, decision making, self-awareness, effective human influence, and community building.

400. Business Ethics. (2:2:0) Independent Study only.
Moral leadership, character development, and multiple perspectives for making ethical decisions in organizations.

490R. Professional Development Seminar. (1–3:Arr.:0 ea.)
Special topics in organizational behavior. Course content varies from year to year.

500-Level Graduate Courses (available to advanced undergraduates)

531. (OrgB-MBA 649) Managing Entrepreneurial Firms and Family Businesses. (3:3:0)
Issues and problems faced by managers of entrepreneurial enterprises and leaders of family-owned businesses.

541. Training and Development. (3:3:0)
Analysis of learning theories, training methods and strategies, training and development applications, and production and use of current technology for training and human resource development.

551. Theory and Practice of Third-World Development. (3:3:0)
Paradigms of economic development; strategies and applications in various societies.

561. Labor Relations. (3:3:0)
Overview of the U.S. system of industrial relations and collective bargaining; evolution of unionism and labor-management relations, labor law, union-organizing campaigns, contract negotiation, and arbitration procedures.

Graduate Courses

For 600- and 700-level courses, see Organizational Leadership and Strategy in the BYU 2003–2004 Graduate Catalog.

Organizational Behavior Faculty

Professors
Cherrington, David J. (1973) BS, Brigham Young U., 1966; MBA, DBA, Indiana U., Bloomington, 1970, 1970.
Derr, C. Brooklyn (2001) BA, U. of California, Berkeley, 1967; EdD, Harvard U., 1972.
Dyer, W. Gibb, Jr. (1984) BS, MBA, Brigham Young U., 1977, 1979; PhD, Massachusetts Inst. of Technology, 1984.
Gregersen, Hal B. (1992) BA, U. of Utah, 1981; MOB, Brigham Young U., 1983; PhD, U. of California, Irvine, 1989.
Mills, Gordon E. (1971) BA, MA, Brigham Young U., 1966, 1967; PhD, Pennsylvania State U., 1970.
Whetten, David A. (1994) BS, MS, Brigham Young U., 1970, 1971; PhD, Cornell U., 1974.
Wilkins, Alan L. (1978) BA, MBA, Brigham Young U., 1972, 1974; PhD, Stanford U., 1979.
Woodworth, Warner P. (1976) BS, MS, Brigham Young U., 1967, 1969; PhD, U. of Michigan, 1974.

Associate Professors
Kirkham, Kate L. (1978) BS, U. of Utah, 1966; MA, George Washington U., 1973; PhD, Union Graduate School, 1977.
Meek, Christopher B. (1984) BS, MOB, Brigham Young U., 1973, 1975; PhD, Cornell U., 1983.

Assistant Professors
Bischoff, Sheri (2001) BS, MOB, Brigham Young U., 1982, 1985; PhD, U. of Oregon, 1994.
Gardner, Timothy M. (2002) BA, Brigham Young U., 1990; MS, Ohio State U., 1996; PhD, Cornell U., 2002.

Emeriti
Covey, Stephen R. (1957) BS, U. of Utah, 1953; MBA, Harvard U., 1957; DRE, Brigham Young U., 1976.
Moffitt, J. Weldon (1953) BS, Brigham Young U., 1949; MS, U. of Utah, 1950; PhD, U. of Illinois, 1953.
Pace, R. Wayne (1978) BS, U. of Utah, 1953; MS, Brigham Young U., 1957; PhD, Purdue U., 1960.
Peterson, Brent D. (1972) BA, MA, Brigham Young U., 1967, 1968; PhD, Ohio U., 1970.
Stephan, Eric G. (1968) BS, PhD, U. of Utah, 1961, 1966.

Strategy Faculty

Professors
Perry, Lee T. (1985) BS, MOB, Brigham Young U., 1974, 1977; PhD, Yale U., 1982.

Associate Professors
Dyer, Jeffrey H. (1999) BS, MBA, Brigham Young U., 1982, 1984; PhD, U. of California, Los Angeles, 1993.
Godfrey, Paul C. (1994) BS, U. of Utah, 1983; MBA, PhD, U. of Washington, 1989, 1994.
Jackson, W. Burke (1973) BS, Yale U., 1963; MBA, Rutgers U., 1964; MS, PhD, Stanford U., 1968, 1978.

Assistant Professors
Bryce, David J. (2002) BS, MAcc, MBA, Brigham Young U., 1991; PhD, U. of Pennsylvania, 2001.
Hansen, Mark H. (1996) BS, MBA, Brigham Young U., 1990; PhD, Texas A&M U., 1996.
Hatch, Nile (2000) BS, MS, Brigham Young U., 1988, 1989; PhD, U. of California, Berkeley, 1995.
Sanders, Wm. Gerard (1996) BS, Brigham Young U., 1980; PhD, U. of Texas, Austin, 1996.

Romney Institute of Public Management

Robert J. Parsons, Director
760-A TNRB, (801) 422-4221

Public Management (PMgt)

Undergraduate Course

321. Financial Issues in Public and Not-for-Profit Mangement. (3:3:0) Prerequisite: GE American Heritage requirement; Acc 200.
Introduction to fund accounting, budgeting processes, and sources of revenue such as taxes, municipal bonds, user fees, donations, grants, dues, and ticket sales.

350. Citizenship and Volunteerism. (3:3:0)
Examines volunteerism as an important dimension of citizenship by studying lives and contributions of exemplary volunteers. Designing and implementing a major community service project.

385. Business and Society. (3:3:0)
Interaction between business and other societal institutions, both domestic and international.

Graduate Courses

For 500-, 600-, and 700-level courses, see Public Management in the BYU 2003–2004 Graduate Catalog.

Romney Institute of Public Management Faculty

Professors

Adolphson, Donald L. (1980) BA, U. of California, Berkeley, 1966; MS, PhD, U. of Wisconsin, Madison, 1968, 1973.
Brady, F. Neil (1993) BS, MPA, Brigham Young U., 1970, 1980; PhD, U. of Texas, Austin, 1978.
Cornia, Gary C. (1980) BS, Weber State Coll., 1972; MS, Utah State U., 1974; PhD, Ohio State U., 1979.
Knighton, Lennis M. (1971) AS, Stevens Henager Coll., 1956; BA, MAcc, Brigham Young U., 1962, 1964; CPA, 1964; PhD, Michigan State U., 1966.
Parsons, Robert J. (1970) BS, MS, Brigham Young U., 1964, 1966; PhD, U. of California, Riverside, 1971.
Wheeler, Gloria E. (1978) BS, Montana State U., 1965; MA, MS, PhD, U. of Michigan, 1966, 1968, 1972.

Associate Professor

Woller, Gary M. (1991) BA, MBA, Brigham Young U., 1984, 1986; MA, PhD, U. of Rochester, 1989, 1992.

Assistant Professors

Facer, Rex L. (2001) BA, MPA, Brigham Young U., 1991, 1993; DPA, U. of Georgia, 2002.
Hart, David W. (2000) BA, MPA, Brigham Young U., 1989, 1991; PhD, State U. of New York, Albany, 1997.
Wadsworth, Lori L. (2001) BS, MPA, Brigham Young U., 1982, 1995.

Emeriti

Buckwalter, Doyle W. (1968) BA, MA, Brigham Young U., 1963, 1964; PhD, U. of Michigan, 1968.
Brower, Stephen L. (1974) BS, MS, Utah State U., 1949, 1950; PhD, Cornell U., 1961.
Hart, David Kirkwood (1983) BS, Brigham Young U., 1957; MA, U. of California, Berkeley, 1960; PhD, Claremont Graduate School, 1965.
Ritchie, J. Bonner (1973) BS, PhD, U. of California, Berkeley, 1960, 1968.
Snow, Karl N., Jr. (1962) BS, Brigham Young U., 1956; MA, U. of Minnesota, Minneapolis, 1958; MPA, DPA, U. of Southern California, 1965, 1972.
Wright, N. Dale (1968) BA, MS, Brigham Young U., 1964, 1966; PhD, U. of Southern California, 1972.

Institute of Marketing: Retail, Sales, and Services

William D. Price, Director
435 TNRB, (801) 422-2953

The Institute of Marketing offers a marketing management emphasis through the Institute of Business Management. It also sponsors the Fred G. Meyer Chair of Retailing, established to enhance understanding and advancement of the industry and to promote successful business principles. Goals of the institute include:

1. Increase the quantity and quality of young people entering the retail, sales, and services field, reduce the time required for a new trainee to become an effective part of the management team, and reduce the turnover rate among management trainees.
2. Produce research that meets the demands of technological and management progress in marketing.
3. Produce workshops and seminars on and off campus to (a) help meet the needs of retail sales and service management and (b) increase students' understanding of both current management problems and long-range social issues.

The Institute of Marketing places a large number of students in internship programs in leading companies across the United States. Internships are available to students in any major.

Management Communication

See Organizational Leadership and Strategy in Marriott School of Management section of this catalog.

Managerial Economics

See Marriott School of Management.

Mandarin

See Asian and Near Eastern Languages.

Manufacturing Engineering

See Mechanical Engineering.

Manufacturing Engineering Technology

See School of Technology.

Mathematics

Lynn E. Garner, Chair
290 TMCB, (801) 422-2061

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

The degree program in the Department of Mathematics is open enrollment.

The Discipline

Mathematics is a means of dealing with order, pattern, and number as seen in the world around us. The abilities to compute, to think logically, and to take a reasoned approach to solving problems are highly valued in society and are characteristics of any educated person. Mathematics is not just a body of knowledge, but a process of analysis, reasoning, comparison, deduction, generalization, and problem solving.

A mathematician's stock in trade is the ability to solve problems and to explain the solutions to others. Having once determined what the right questions are, solving problems involves analyzing both concrete and abstract situations, relating them to mathematical ideas, and using mathematical techniques to work toward solutions. Explaining the solution involves pointing out what has been solved and why the solution is valid.

Career Opportunities

Majors in mathematics (BS) prepare for a wide variety of careers. Some enter graduate school or professional schools and prepare for careers in such fields as college teaching, consulting, research and development, law, medicine, and business administration. Others take positions in government agencies, industrial laboratories, information management firms, or business organizations. All of them spend much time communicating with colleagues about the problems they are solving as they continue to learn more mathematics and share mathematical ideas with others.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music
(one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under the following undergraduate degree program.

Undergraduate Programs and Degrees

BS Mathematics
Minor Mathematics

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Mathematics
PhD Mathematics

For more information see the BYU 2003–2004 Graduate Catalog.

Advisement

Upon completion of five core courses (from Math 112H, 113H, 190, 214, 343), undergraduate majors are required to meet with an assigned faculty advisor. Students whose grade point average is less than a B in the first four core courses need to realize that advanced courses require much more depth of understanding and may be difficult for them.

Students who are considering graduate work in mathematics may receive advice from the graduate coordinator.

General Information

1. It is recommended that a student complete the following courses in high school:

   4 units of English
   1 unit of physics or chemistry.
   4 units of mathematics, including 2.5 units of algebra, 1 unit of geometry, and .5 unit of trigonometry. This qualifies a student to begin college mathematics with Math 112H. If calculus is available in high school, a student planning to major in mathematics is strongly encouraged to take it; doing so requires completing one of the preceding algebra units before high school.

   Advanced Placement (AP) credit is available in mathematics as follows:

   A score of 3 on the calculus AB exam gives credit in Math 110 and 111; a score of 4 or 5 on the calculus AB exam gives credit in Math 110 and 112.
   A score of 3, 4, or 5 on the calculus BC exam gives credit in Math 112 and 113.

An AP student without credit in Math 112 must begin with Math 112H; an AP student without credit in Math 113 must begin with Math 112H or 113H.
AP students with credit in Math 113 are urged to begin with Math 113H anyway, unless they scored 5 on the calculus BC exam.
AP students should direct Educational Testing Service (ETS) to report scores to BYU to have credit posted.

Questions regarding placement should be directed to the Mathematics Department, 292 TMCB.

2. Majors are strongly urged to study Phscs 121 and 220 during their first two years.
3. It is strongly recommended that RelC 491 be taken during the senior year.

BS Mathematics (53 hours*)

Major Requirements

1. Grades of C– or below will not be acceptable in major courses.
2. Complete the following core requirements:
   Math 112H, 113H, 190, 214, 315, 334, 343, 371.
3. Complete the following:
   Math 316, 332.
4. Complete the following:
   CS 142.
5. Complete one of the following:
   Stat 321, 421.
6. After consulting with a faculty advisor, complete four courses from one of the following areas of specialization (at least one 500-level course must be included):
   Applied mathematics: Math 347, 511, 521, 522, 534, 535, 541, 542, 547, 570.
   Discrete math and geometry: Math 350, 355, 362, 387, 532, 551, 552, 570.
   Numerical analysis: Math 311, 347, 411, 511, 512.
   Pure mathematics: Math 372, 387, 532, 541, 542, 551, 552.
7. Complete an additional 3 hours from the following:
   Math 300, 311, 347, 350, 355, 362, 372, 387, 411, 460R, 480, 495R, 501, 502, 511, 512, 513R, 521, 522, 530, 532, 534, 535, 541, 542, 543, 547, 551, 552, 561, 562, 570.
   Phscs 517.
8. Students who continue toward graduate work should complete Math 372, 532, 541, and 542.
9. Those planning for doctoral work should also complete Math 551 and 552 and are advised to gain competence in one or two languages from French, German, and Russian.
10. Students are required to take the advanced math GRE before their final semester of study.

Recommended Courses

Phscs 121, 220.

*Hours include courses that may fulfill GE or university requirements.

Minor Mathematics (20 hours*)

Minor Requirements

1. Grades of C– or below will not be accepted.
2. Complete the following courses:
   Math 112, 113, 343.
3. Complete one course from the following:
   Math 214, 315, 316.
4. Complete 6 hours from the following:
   Math 300, 311, 315, 316, 332, 334, 347, 350, 355, 362, 371, 372, 387, or any 400- or 500-level mathematics course.

*Hours include courses that may fulfill GE or university requirements.

Mathematics (Math)

Undergraduate Courses

Note: For courses containing material preparatory to Math 97 (up through beginning algebra) please refer to Independent Study.

97. Intermediate Algebra. (0:2:1) F, W, Sp, Su Independent Study also. Prerequisite: high school algebra.
Elementary logic, real number system, equations and inequalities (linear, polynomial, rational, and radical expressions), graphing, function notation, inverse function, exponential functions, systems of equations, variations. Fee.

110. College Algebra. (3:3:0) F, W, Sp, Su Independent Study also. Prerequisite: Math 97 or equivalent.
Functions, polynomials, theory of equations, exponential and logarithmic functions, matrices, determinants, systems of linear equations, permutations, combinations, binomial theorem.

111. Trigonometry. (2:2:0) F, W, Sp, Su Independent Study also. Prerequisite: Math 110 or equivalent.
Circular functions, triangle relationships, identities, inverse trig functions, trigonometric equations, vectors, complex numbers, DeMoivre's theorem.

112. Calculus 1. (4:5:0) F, W, Sp, Su Honors also. Prerequisite: Math 110 and 111 or equivalent.
Differential and integral calculus: limits; continuity; the derivative and applications; extrema; the definite integral; fundamental theorem of calculus; L'Hôpital's rule.

113. Calculus 2. (4:5:0) F, W, Sp, Su Honors also. Prerequisite: Math 112 or equivalent.
Techniques and applications of integration; sequences, series, convergence tests, power series; parametric equations; polar coordinates; gradients; directional derivatives; iterated integrals.

119. Introduction to Calculus. (4:4:1) For students in the College of Biology and Agriculture and the Marriott School of Management. Independent Study also. F, W, Sp, Su Prerequisite: Math 110 or equivalent.
Introduction to plane analytic geometry and calculus.

190. Fundamentals of Mathematics. (3:3:0) F, W, Su Prerequisite: Math 112 or concurrent enrollment with instructor's consent.
Achieving maturity in mathematical communication. Introduction to mathematical proof; methods of proof; analysis of proof; induction; logical reasoning.

212. Advanced Engineering Mathematics. (3:3:0) F, W, Sp Prerequisite: Math 113 or equivalent.
Vectors, linear algebra, and vector calculus. Not applicable for the math minor.

214. Calculus of Several Variables. (3:3:0) F, W, Sp, Su Prerequisite: Math 113; 343 or concurrent enrollment.
Partial differentiation, the Jacobian matrix, and integral theorems of vector calculus.

300. History of Mathematics. (3:3:0) F, W, Su Independent Study also. Prerequisite: Math 113.
Development of mathematics, emphasizing underlying principles and motivations.

302. Mathematics for Engineering 1. (4:4:0) F, W Prerequisite: Math 113 and passing grade on required preparatory exam taken during first week of class. (Practice exams available on class Web site.)
Multivariable calculus, linear algebra, and numerical methods.

303. Mathematics for Engineering 2. (4:4:0) F, W Prerequisite: Math 302; or Math 214 and 343.
ODEs, Laplace transforms, Fourier series, PDEs, numerical methods.

311. Introduction to Numerical Methods. (3:3:0) F, W Prerequisite: calculus and knowledge of a programming language.
Root finding, interpolation, curve fitting, numerical differentiation and integration, multiple integrals, direct solvers for linear systems, least squares, rational approximations, fourier and other orthogonal methods.

315, 316. Theory of Analysis. (3:3:0 ea.) 315: F, W; 316: F, W Prerequisite: for 315: Math 113, 190, 343; for 316: Math 315.
Rigorous treatment of calculus of single and several variables. Topics include uniform continuity, metric spaces, Riemann integral, implicit function theorem, and integral theorems of vector calculus.

332. Introduction to Complex Analysis. (3:3:0) F, W Prerequisite: Math 214 or 316.
Complex algebra, analytic functions, integration in the complex plane, infinite series, theory of residues, conformal mapping.

334. Ordinary Differential Equations. (3:3:0) F, W, Sp, Su Prerequisite: Math 113; 212 or 343.
Methods and theory of ordinary differential equations.

343. Elementary Linear Algebra. (3:3:0) F, W, Sp, Su Prerequisite: Math 112 or 119.
Linear systems, matrices, vectors and vector spaces, linear transformations, determinants, inner product spaces, eigenvalues, and eigenvectors.

347. Introduction to Partial Differential Equations. (3:3:0) W, Su Prerequisite: Math 213 or 334.
Boundary value problems; transform methods; Fourier series; Bessel functions; Legendre polynomials.

350. Combinatorics. (3:3:0) Prerequisite: Math 343, 371.
Permutations, combinations, recurrence relations, applications.

355. Graph Theory. (3:3:0) Prerequisite: Math 343.
Maps, graphs and digraphs, coloring problems, applications.

362. Survey of Geometry. (3:3:0) F, W, Su Independent Study also. Prerequisite: Math 112, 190.
Logical structure of Euclidean, non-Euclidean, and finite geometries.

371, 372. Abstract Algebra. (3:3:0 ea.) 371: F, W, Sp; 372: W Prerequisite: for 371: Math 190, 343; for 372: Math 371.
Groups, rings, fields, vector spaces, linear transformations, matrices, field extensions, etc.

387. Number Theory. (3:3:0) Prerequisite: Math 343, 371.
Foundations; congruences; quadratic reciprocity; unique factorization, prime distribution or Diophantine equations.

391R. Seminar in Mathematics. (1:1:0) F
Topics from classical problems of antiquity, combinatorial mathematics, graph theory, real functions, number theory, functional equations.

399R. Academic Internship. (1–9:9:0 ea.) On dem.
On-the-job experience.

411. Numerical Methods. (3:3:0) W Prerequisite: Math 311, 334.
Iterative solvers for linear systems, eigenvalue, eigenvector approximations, numerical solutions to nonlinear systems, numerical techniques for initial and boundary value problems, elementary solvers for PDEs.

460R. Topics in Geometry. (3:3:0 ea.) On dem. Prerequisite: Math 343, 362, or equivalent.
Topics selected from the various aspects of synthetic, analytic, algebraic, and differential geometry.

480. Mathematical Models. (3:3:0) On dem. Prerequisite: Math 214, 311, 343; 213 or 334.
Construction, solution, and interpretation of discrete and continuous models applied to problems in the physical, natural, and social sciences.

495R. Readings in Mathematics. (1–2:0:3 ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Directed readings beyond the scope of usual undergraduate courses.

499R. Senior Thesis. (1–3:0:3 ea.) F, W, Sp, Su

500-Level Graduate Courses (available to advanced undergraduates)

501. Real Numbers. (3:3:0) On dem. Prerequisite: Math 371.
Extensive examination of various axiomatic descriptions of real numbers and interrelationships among these descriptions.

502. Set Theory. (3:3:0) On dem. Prerequisite: Math 371.
Zermelo-Fraenkel axioms for set theory, the axiom of choice, ordinal and cardinal numbers, and algebra of sets.

511. Numerical Methods for Partial Differential Equations. (3:3:0) F Prerequisite: Math 311, 343; 213 or 347; or equivalent.
Finite difference and finite volume methods for partial differential equations. Stability, consistency, and convergence theory.

512. Numerical Analysis. (3:3:0) W Prerequisite: Math 311, 343, or instructor's consent.
Numerical matrix algebra, orthogonalization and least squares methods, unsymmetric and symmetric eigenvalue problems, iterative methods, Lanczos methods, advanced solvers for partial differential equations.

513R. Advanced Topics in Applied Mathematics. (3:3:0 ea.) On dem. Prerequisite: instructor's consent.

521, 522. Methods of Applied Mathematics. (3:3:0 ea.) 521:Alt. F; 522: Alt. W Prerequisite: Math 334.
Survey of current methods, continuous and discrete, including linear algebra, estimation, differential equations of equilibrium, eigenvalue and initial value problems; finite element, spectral, transform, and difference methods; Fourier series, the Fourier matrix, fast Fourier transform; convolution.

530. Calculus of Variations. (3:3:0) On dem. Prerequisite: Math 213 or 334; 343. Recommended: Math 315, 347.
Euler-Lagrange equation, sufficient conditions, Hamilton's principle of least action, Dirichlet's principle; applications to mechanics, geometry, economics, eigenvalue problems, direct methods.

532. Complex Analysis. (3:3:0) Prerequisite: Math 332 or instructor's consent.
Introduction to theory of complex analysis at beginning graduate level. Topics: Cauchy integral equations, Riemann surfaces, Picard's theorem, etc.

534. Introduction to Dynamical Systems 1. (3:3:0) Prerequisite: Math 315, 334; or equivalents.
Discrete dynamical systems; iterations of maps on the line and the plane; bifurcation theory; chaos, Julia sets, and fractals. Computational experimentation.

535. Introduction to Dynamical Systems 2. (3:3:0)
Continuous dynamical systems; introduction to invariant manifold theory; stability; bifurcation; low-dimensional chaotic systems; attractors.

541, 542. Real Analysis. (3:3:0 ea.) F, W Prerequisite: Math 315, 343; 214 or 316.
Rigorous treatment of differentiation and integration theory; Lebesque measure; Banach spaces.

543. Advanced Probability. (3:3:0) Prerequisite: Math 214, Stat 341.
Advanced combinatorial methods, random walk, Markov chains, and stochastic processes.

547. Partial Differential Equations. (3:3:0) Prerequisite: Math 334; 214 or 316.
Topics from elliptic equations, heat equations, wave equations, stability, Fourier methods, energy methods, existence of solutions, etc.

551, 552. Introduction to Topology. (3:3:0 ea.) F, W Prerequisite: Math 315.
Axiomatic treatment of linearly ordered spaces, metric spaces, arcs, and Jordan curves; types of connectedness.

561, 562. Introduction to Algebraic Geometry. (3:3:0) Prerequisite: Math 671 or concurrent enrollment.
Projective varieties, curves, surfaces, differential forms, and divisors.

570. Matrix Analysis. (3:3:0) Prerequisite: Math 343; or 212, 213; or equivalents.
Special classes of matrices, canonical forms, matrix and vector norms, localization of eigenvalues, matrix functions, applications.

587. Introduction to Analytic Number Theory. (3:3:0) F or W Prerequisite: Math 332 or equivalent; instructor's consent.
Arithmetical functions; distribution of primes; Dirichlet characters; Dirichlet's theorem; Gauss sums; primitive roots; Dirichlet L-functions; Riemann zeta-function; prime number theorem; partitions.

588. Introduction to Algebraic Number Theory. (3:3:0) F or W Prerequisite: Math 372 or equivalent; instructor's consent.
Algebraic integers, different and discriminant; decomposition of primes; class group; Dirichlet unit theorem; Dedekind zeta-function; cyclotomic fields; valuations; completions.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Mathematics Faculty

Orson Pratt Professor
Cannon, James W. (1986) BA, PhD, U. of Utah, 1967, 1969.

Professors
Baker, Roger C. (1991) BSc, PhD, U. of London, England, 1968, 1971.
Barrett, Wayne W. (1981) BS, U. of Utah, 1968; MS, PhD, New York U., 1975, 1975.
Bates, Peter W. (1984) BS, Queen Mary Coll., U. of London, England, 1969; PhD, U. of Utah, 1976.
Fearnley, Lawrence (1957) BS, U. of London, 1953; PhD, U. of Utah, 1959; PhD, U. of London, 1970.
Forcade, Rodney W. (1981) BS, MS, U. of Chicago, 1961, 1963; PhD, U. of Washington, 1971.
Garner, Lynn E. (1963) BS, Brigham Young U., 1962; MA, U. of Utah, 1964; PhD, U. of Oregon, 1968.
Humphries, Stephen P. (1987) BSc, MSc, PhD, U. of Wales, 1974, 1978, 1983.
Kuttler, Kenneth L. (1999) BS, MS, Brigham Young U., 1974, 1976; PhD, U. of Texas, Austin, 1981.
Lamoreaux, Jack W. (1968) BS, Brigham Young U., 1960; MS, PhD, U. of Utah, 1964, 1967.
Lang, William E. (1989) BA, Carleton Coll., 1974; MS, Yale U., 1975; PhD, Harvard U., 1978.
Lu, Kening (1990) BS, MS, Sichuan U., China, 1982, 1985; PhD, Michigan State U., 1988.
Ouyang, Tiancheng (1992) MS, Naukai U., China, 1981; PhD, U. of Minnesota, 1989.
Pollington, Andrew D. (1982) BS, MS, PhD, U. of London, 1975, 1976, 1978.
Smith, William V. (1985) BS, PhD, U. of Utah, 1973, 1978.
Wright, David G. (1983) BS, Brigham Young U., 1970; MA, PhD, U. of Wisconsin, Madison, 1972, 1973.

Associate Professors
Chahal, Jasbir S. (1981) MA, Punjab U., India, 1970; PhD, Johns Hopkins U., 1979.
Chow, Shue-Sum (1998) BS, U. of Canterbury, New Zealand, 1979; PhD, Australian National U., Australia, 1983.
Clark, David A. (1993) BA, U. of Utah, 1985; MSc, PhD, McGill U., Canada, 1988, 1992.
Conner, Gregory R. (1992) BA, Humboldt State U., 1987; MS, PhD, U. of Utah, 1989, 1992.
Grant, Christopher P. (1993) BS, MS, Brigham Young U., 1986, 1988; PhD, U. of Utah, 1991.
Jarvis, Tyler (1996) BS, MS, Brigham Young U., 1989, 1990; MA, PhD, Princeton U., 1992, 1994.
Skarda, R. Vencil (1965) BA, Pomona Coll., 1961; MS, PhD, California Inst. of Technology, 1964, 1965.
Tolman, L. Kirk (1965) BS, MS, Brigham Young U., 1960, 1961; PhD, U. of New Mexico, 1972.
Villamizar, Vianey (2000) BS, MS, Universidad Central de Venezuela, 1977, 1983; PhD, Rensselaer Polytechnic Inst., 1987.

Assistant Professors
Cardon, David A. (1998) BS, Brigham Young U., 1990; MS, PhD, Stanford U., 1993, 1996.
Dallon, John (1999) BA, MA, PhD, U. of Utah, 1989, 1991, 1996.
Dorff, Michael (2000) BA, Brigham Young U., 1986; MS, U. of New Hampshire, 1992; PhD, U. of Kentucky, 1997.
Doud, Darrin M. (2001) BS, MS, Brigham Young U., 1992, 1993; MS, PhD, U. of Illinois, 1999, 1999.
Glasgow, Scott (2000) BS, Brigham Young U., 1988; PhD, U. of Arizona, 1993.
Halverson, Denise M. (2001) BS, MS, Brigham Young U., 1989, 1994; PhD, U. of Tennessee, 1999.
Li, Xian-Jin (2001) BS, Hunan Normal U., China, 1982; MS, Academia Sinica, Beijing, China, 1985; PhD, Purdue U., 1993.
Swenson, Eric L. (1998) BS, PhD, Brigham Young U., 1987, 1993.

Emeriti
Chatterley, Louis J. (1962) BS, Brigham Young U., 1955; MS, U. of Utah, 1962; PhD, U. of Texas, Austin, 1972.
Clawson, Robert G. (1979) AA, Pasadena City Coll., 1960; BA, California State U., Los Angeles, 1963; MS, U. of South Dakota, 1971.
Crawley, Peter L. (1971) BS, PhD, California Inst. of Technology, 1957, 1961.
Fletcher, Harvey J., Jr. (1980) BS, Massachusetts Inst. of Technology, 1944; MS, California Inst. of Technology, 1948; PhD, U. of Utah, 1954.
Garbe, Douglas G. (1963) AS, Snow Coll., 1956; BS, Brigham Young U., 1962; MS, U. of Oregon, 1967; PhD, U. of Texas, Austin, 1973.
Gee, Burton C. (1960) BS, Brigham Young U., 1951; MS, EdD, Oregon State U., 1958, 1965.
Gill, Gurcharan S. (1960) BS, Brigham Young U., 1958; M.S, PhD, U. of Utah, 1960, 1965.
Hansen, Richard A. (1967) BS, MS, PhD, U. of Utah, 1959, 1961, 1965.
Haupt, Floyd E. (1954) BS, MS, U. of Arizona, 1947, 1948.
Hillam, Kenneth L. (1957) BS, MS, U. of Utah, 1949, 1956; PhD, U. of Colorado, 1962.
Jamison, Ronald D. (1963) BS, Brigham Young U., 1957; PhD, U. of Utah, 1965.
Larsen, Kenneth M. (1960) BA, U. of Utah, 1950; MA, Brigham Young U., 1956; PhD, U. of California, Los Angeles, 1964.
Moore, Hal G (1961) BS, MS, U. of Utah, 1952, 1957; PhD, U. of California, Santa Barbara, 1967.
Robinson, Donald W. (1956) BS, MA, U. of Utah, 1948, 1952; PhD, Case Inst. of Technology, 1956.
Snow, Donald Ray (1969) BA, BS, U. of Utah, 1959, 1959; MS, MS, PhD, Stanford U., 1960, 1962, 1965.

Wickes, Harry E. (1957) BS, MEd, Brigham Young U., 1950, 1954; MEd, Harvard U., 1962; EdD, Colorado State U., 1967.
Wight, Theodore A. (1963) BS, MS, EdD, U. of Utah, 1955, 1964, 1969.
Wynn, Jan Eugene (1966) BS, BS, U. of Idaho, 1962, 1962; MS, Utah State U., 1965; PhD, Colorado State U., 1972.

Mathematics Education

Gerald M. Armstrong, Chair
260 TMCB, (801) 422-1735

Steven R. Williams, Associate Chair
255 TMCB, (801) 422-2887

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

The degree program in the Department of Mathematics Education is open enrollment. However, only successful completion of all parts of the program will lead to licensure.

The Discipline

Mathematics is the discipline through which we make sense of the order, patterns, and quantitative situations we perceive in the world around us. The foundational skills of this discipline—the abilities to formulate, focus, and solve problems; to articulate, test, and justify conjectures; to communicate one's reasoning about quantities and the relationships between them; and to see connections between different mathematical ideas and real-world contexts—are highly valued in society and are characteristics of any educated person. Mathematics is not only a body of knowledge but also a process of analysis, reasoning, comparison, deduction, generalization, and problem solving.

Mathematics educators depend heavily upon their own understanding of mathematics in order to identify and articulate the mathematical ideas they want students to learn, to assess which concepts their students already possess that might serve as a foundation for learning, and to develop activities that help students develop rich understandings. They also use their understanding of the nature of the discipline to structure a culture of inquiry, reasoning, and problem solving in their classrooms.

Courses in the undergraduate program are designed to help prospective teachers plan, manage, and implement classroom activities that facilitate students' learning of mathematics. Specific program goals include (1) mastery of the foundational skills of mathematics, (2) deep reflection on mathematics learning at all levels, through observation of and participation in high-quality classroom practice, (3) increased autonomy and confidence as an investigator, active learner, and productive thinker, and (4) extended field experience, informed by the best current understanding.

Program faculty include educational and mathematical researchers, specialists in both preservice and inservice teacher education, and school practitioners, spanning a broad range of interest and experience.

Career Opportunities

Majors in mathematics education prepare for careers in teaching at the middle school and junior and high school levels.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music
(one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under the following undergraduate degree program.

Undergraduate Programs and Degrees

BA Mathematics Education
Minor Mathematics Education

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Mathematics Education

For more information see the BYU 2003–2004 Graduate Catalog.

Advisement

Upon completion of five core courses (from Math 112H, 113H, 190, 214, 343), undergraduate majors are required to meet with the undergraduate coordinator. Students whose grade point average is less than a B in the first five core courses need to realize that advanced courses require much more depth of understanding and may be difficult for them.

Students who are considering graduate work in mathematics education may receive advice from the graduate coordinator.

General Information

It is recommended that a student complete the following courses in high school:

4 units of English.
1 unit of physics or chemistry.
4 units of mathematics, including 2.5 units of algebra, 1 unit of geometry, and .5 unit of trigonometry. This qualifies a student to begin college mathematics with Math 112H. If calculus is available in high school, a student planning to major in mathematics education is strongly encouraged to take it; doing so requires completing one of the preceding algebra units before high school.

Advanced Placement (AP) credit is available in mathematics as follows:

A score of 3 on the calculus AB exam gives credit in Math 110 and 111; a score of 4 or 5 on the calculus AB exam gives credit in Math 110 and 112.
A score of 3, 4, or 5 on the calculus BC exam gives credit in Math 112 and 113.
An AP student without credit in Math 112 must begin with Math 112H; an AP student without credit in Math 113 must begin with Math 112H or 113H.
AP students with credit in Math 113 are urged to begin with Math 113H anyway, unless they scored 5 on the calculus BC exam.
AP students should direct Educational Testing Service (ETS) to report scores to BYU to have credit posted.

Questions regarding placement should be directed to the Mathematics Education Department, 260 TMCB.

BA Mathematics Education (70–71 hours*, including licensure hours)

Major Requirements

1. Grades below C– will not be acceptable in major courses.
2. Complete the following core requirements during the first two years of the program:
   Math 112H, 113H, 190, 214, 315, 334, 343, 371.
   MthEd 117, 218.
3. Complete the following:
   Math 300, 362.
   MthEd 308, 377.
   Stat 301.
4. Complete one course from the following:
   Math 350, 355, 387.
5. A teaching minor is not needed for licensure. However, it is strongly recommended.
6. Complete the Professional Education Component (24–25 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

Minor Mathematics Education (29 hours*)

Minor Requirements

1. Grades below C– will not be accepted.
2. Complete the following:
   Math 112, 113, 190, 343, 362, 371.
   MthEd 308, 377.
   Stat 301.

*Hours include courses that may fulfill GE or university requirements.

Mathematics Education (MthEd)

Undergraduate Courses

117. Critical Review of School Mathematics. (1:1:0) F, W Prerequisite: concurrent enrollment in Math 113 and/or 190.
Determining how secondary school mathematics builds fundamental understanding concerning children's and adolescents' acquisition of mathematical concepts.

218. Assessment of Student Understanding and Task Design. (1:1:0) F, W Prerequisite: concurrent enrollment in Math 343.
Questioning techniques, interviewing skills, and other methods of assessing students' mathematical understanding. Coordinating assessments with task design to achieve learning goals.

305. Basic Concepts of Mathematics. (3:3:1) F, W Prerequisite: Math 110 or equivalent; permission from Teacher Education Department.
Concept-oriented exploration of number, measurement, and informal geometry in relation to children's learning. Required of prospective elementary school teachers.

306. Concepts of Mathematics. (3:3:1) F, W Prerequisite: MthEd 305; permission from Teacher Education Department.
Concept-oriented exploration of rational numbers and proportional reasoning, probability, and early algebraic reasoning in relation to children's learning. Required of prospective elementary school teachers.

308. Mathematics Teaching with Technology. (3:3:0) F, W, Sp Prerequisite: Math 214, 343, 362; basic computer literacy.
Using technology to teach and understand mathematics. Math-specific software and calculators used to investigate Euclidean geometry, non-Euclidean geometry, algorithms, probabilities, etc., research regarding effectiveness.

377. Mathematics Teaching in the Public Schools. (3:3:1) F, W, Sp Prerequisite: departmental consent.
Mathematics teaching practice in grades 7–12, including lesson/task design, curriculum evaluation, and classroom management in context of practice teaching.

495R. Readings in Mathematics Education. (1–2:0:3 ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Directed readings beyond scope of usual undergraduate courses.

499R. Senior Thesis. (1–3:0:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

562. Euclidean Geometry: Content, Learning, and Teaching. (3:3:0) Alt. yr. on dem. Prerequisite: Math 362 or equivalent.
Euclidean geometry, including classical problems, polyhedra, transformations, congruence, similarity, integer geometry, minimization; technology in geometry, Van Hiele levels, role of proof, and high school curriculum.

590. Foundational Issues in Learning Mathematics. (3:2:2) Prerequisite: teaching certificate or completion of student teaching.
Introduction to research in mathematics learning; mathematical thinking; cognitive, social, and philosophical approaches to describing mathematics learning. Lab experience in classrooms.

591. Scholarly Inquiry in Mathematics Education. (3:2:2) Prerequisite: MthEd 590.
Introduction to scholarly inquiry in mathematics education; issues in research methodology. Lab experience in classrooms.

598R. Topics in Mathematics Education. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Includes specific research areas and curriculum studies of school mathematics topics (i.e., geometry, algebra, and calculus).

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Mathematics Education Faculty

Professor
Speiser, Robert David (1984) AB, Columbia Coll., 1965; PhD, Cornell U., 1970.

Teaching Professor
Voyles, Jacqueline Taylor (1978) BS, Idaho State U., 1966; MA, EdD, Brigham Young U., 1976, 1987.

Associate Professors
Armstrong, Gerald M. (1970) BS, MS, Brigham Young U., 1963, 1965; PhD, U. of Wisconsin, Madison, 1971.
Lawlor, Gary R. (1991) BS, Brigham Young U., 1984; PhD, Stanford U., 1988.
Peterson, Blake (1996) BA, Utah State U., 1986; MS, PhD, Washington State U., 1990, 1993.
Walter, Charles N. (1969) BA, MA, PhD, U. of New Mexico, 1963, 1965, 1970.
Williams, Steven R. (1993) BS, MS, Brigham Young U., 1980, 1983; PhD, U. of Wisconsin, Madison, 1989.

Assistant Professor
Siebert, Daniel (2000) BS, MS, Brigham Young U., 1989, 1993; PhD, U. of California, San Diego, 2000.

Instructor
Walter, Janet (2002) BA, MA, Brigham Young U., 1988, 1992.

Mechanical Engineering

Larry L. Howell, Chair
435-A CTB, (801) 422-2625

College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325

Admission to Degree Program

The degree program in the Department of Mechanical Engineering carries special enrollment limitations at the junior level. Please see Professional Program Acceptance below and the college advisement center for specific details.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under the following undergraduate degree program.

Undergraduate Programs and Degrees

BS Mechanical Engineering

Students should see their college advisement center or a faculty member for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Mechanical Engineering
PhD Mechanical Engineering

For more information see the BYU 2003–2004 Graduate Catalog.

The Discipline

Mechanical engineers work with concepts, ideas, and products that are primarily mechanical or energy related. Mechanical engineering is a broad discipline that prepares a person to contribute in a wide range of fields such as aerospace, computer graphics, power generation, machine tools, petroleum, agricultural and construction equipment, medicine, government, and all types of transportation. A mechanical engineer may work in research, design, analysis, manufacturing, testing, operations, sales, or management. Engineers use critical problem-solving methods and basic principles of mathematics and science to creatively solve problems.

Educational Objectives

The objective of the program is to produce graduates who:

1. Eagerly pursue lifelong learning through study and faith in professional, religious, and personal aspects of life.
2. Understand the fundamental concepts of math, science, and engineering, particularly as they apply to thermal and mechanical systems.
3. Implement the fundamental principles of engineering through hands-on design and analysis, using modern engineering tools and practices to solve real-world engineering problems with high standards of personal and professional ethics.
4. Express faith in God and desire to serve Him through lifelong service to family, church, profession, and community.

Program Outcomes

To assure that this objective is reached, the department has articulated twelve outcomes of the BS program. Each student graduating from this program is expected to have:

1. A basic understanding of fundamental physical phenomena and governing principles.
2. An ability to develop and solve mathematical models of fundamental physical phenomena.
3. An ability to design a system, component, or process to meet desired needs.
4. The expertise to plan and conduct an experimental program and evaluate the results.
5. An ability to use modern engineering tools and techniques in engineering practice.
6. An understanding of manufacturing processes and planning.
7. Effective oral and written communication skills.
8. An ability to work with others to accomplish common goals.
9. An appreciation of history, philosophy, literature, science, and the fine arts.
10. Personal behavior consistent with high moral and ethical standards.
11. An understanding of engineering in a global, societal context.
12. A desire for and commitment to lifelong learning and service.

All courses in the curriculum are designed to help achieve these outcomes.

The curriculum in mechanical engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET).

Career Opportunities

A bachelor of science degree in mechanical engineering provides widely recognized professional training for careers in industry, government, and other areas. Most industrial companies hire

some mechanical engineers. Companies that make mechanical or energy-related products may hire mostly mechanical engineers. As a result, many mechanical engineering positions are available worldwide. Mechanical engineers have job opportunities in companies involved in such areas as aircraft and spacecraft design; manufacturing processes; product safety and reliability; solar energy; electronic equipment packaging and cooling; power plant design; jet, train, truck, and automobile engines; environmental protection; artificial intelligence; robotics; medical and hospital equipment; new material development and applications; and technical writing. Increasing numbers of positions utilize foreign language experience.

A graduate in mechanical engineering is prepared for advanced studies in the field as well as in a variety of other disciplines, including law, medicine, and business administration. Perhaps most important to graduates are the problem-solving strategies and thinking processes acquired in the study of mechanical engineering that help one to succeed in any area of endeavor.

General Information

Any student may choose to major in mechanical engineering and to enroll in all classes in the preprofessional program (items 1 and 2 under BS Mechanical Engineering Major Requirements).

Professional Program Acceptance

Students must be accepted into the professional program before they may take upper-division mechanical engineering courses (items 3 and 4 in major requirements). To apply, students must have completed the preprofessional requirements (item 1 in major requirements) with a minimum grade of C– in each course. Acceptance is based primarily upon the grade point average received in preprofessional and other major courses, including all grades received in repeated courses. Only the first two passing grades in preprofessional courses will be considered. Candidates with a preprofessional GPA below 2.7 probably will not be admitted. Normal application deadlines are June 1, October 1 and February 1. Transfer students may be considered at other times provided they have been admitted to the university. Application forms are available in the college advisement center.

Academic Standards and Continuance

On gaining acceptance into the professional program, students must maintain a minimum university cumulative grade point average of 2.0. No more than 6 credit hours of grades below C– in major courses may be applied toward graduation. A professional program course may not be retaken more than once.

BS Mechanical Engineering (92.5–94.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following preprofessional requirements:
   Chem 105.
   CEEn 103.
   Math 112, 113.
   MeEn 172, 191.
   Phscs 123 (students without high school physics should start with Phscs 121).
2. Complete the following supporting courses:
   CEEn 203, 204.
   Engl 316.
   MeEn 250, 273, 282.
   Phscs 220.
   Stat 361.
   And complete 3 hours of the following:
   ECEn 301R.
3. Complete one of the following advanced mathematics sequences. Students who desire a more intensive experience in mathematics should choose option b. Those who choose option b may obtain a math minor by taking one additional course (see the Mathematics section of this catalog for more details):
   a. Math 302, 303.
   b. Math 214, 334, 343. If this sequence is chosen, Math 343 may be used as a technical elective under requirement 5 below.
4. Complete the following professional requirements:
   MeEn 312, 321, 322, 337, 363, 372, 435, 440, 475, 476.
5. Complete 9 hours (three courses) of technical electives. The purpose of these courses is to provide the student with advanced engineering concepts and methods. The technical electives are normally 500-level mechanical engineering courses (3-credit-hour maximum in MeEn 595R or other project classes). Other courses may be used within the following limitations:
   a. At least two courses must be in mechanical engineering.
   b. At least two courses must be at the 500-level.
   c. No courses may be below the 300-level.
   d. All courses must be of an acceptable level from the following areas: engineering, mathematics, statistics, natural science, and life science.
   e. No course may duplicate another course used to satisfy graduation requirements, except Math 343 from item 3b above may be used as a technical elective.

Manufacturing Option

The Society of Manufacturing Engineers has identified four areas of competency for manufacturing engineering as follows: (1) materials and manufacturing processes; (2) process, assembly and product engineering; (3) manufacturing competitiveness; and (4) manufacturing systems design.

An option in manufacturing engineering is available for mechanical engineering majors. It may be completed by taking 12 hours of technical electives from the following three areas (which may be counted against the 9 hours of mechanical engineering electives) according to the following requirements:

1. Complete the following:
   MeEn 585.
2. Complete one or more courses from the following:
   MeEn 537, 582, 586.
3. Complete the 12-hour requirement with courses from the following:
   MeEn 552, 553, 556, 558, 577, 584.

When combined with required courses for all mechanical engineering majors related to manufacturing, namely MeEn 250, 282, 475/476, and Stat 361, this option provides a strong foundation in manufacturing engineering.

*Hours include courses that may fulfill GE or university requirements.

Mechanical Engineering (MeEn)

Undergraduate Courses

172. Engineering Graphics—Principles and Applications. (3:3:0) F, W, Sp Prerequisite: engineering and technology major status.

Comprehensive applications of CAD-based national (ANSI) and international (ISO) graphics standards, including coordinate and geometric dimensioning and tolerancing practices, manufacturing, and product verification procedures.

191. New Student Seminar. (.5:1:0) F, W

Topics of special interest to new mechanical engineering majors. Required of all first-semester freshman and transfer students.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp or Su Prerequisite: consent of both department chair and cooperative education coordinator.

Work experience evaluated by supervisor and posted on student's transcript.

250. Science of Engineering Materials. (3:3:0) F, W, Sp or Su Prerequisite: Chem 105.

Principles and properties of solid materials and their behavior as applied to engineering.

273. Introduction to Scientific Computing and Computer-Aided Engineering. (3:2:3) F, W, Sp or Su Prerequisite: Math 113; concurrent enrollment in Math 212.

Computer programming for engineers taught in context of solving physical systems using numerical methods. Student will program solutions using the C language, spreadsheets, symbolic solvers, etc.

282. Manufacturing Processes. (3:2:3) F, W, Sp or Su Prerequisite: CEEn 203, MeEn 250.

Formerly MFE 232. Common manufacturing processes, including technological limitations and economic considerations. Influence of product design on process selection and manufacturing efficiency.

312. Fluid Mechanics. (3:3:1) F, W, Sp or Su Prerequisite: MeEn 273, 321, 363.

Physics and modeling of fluid flow; fluid statics, dimensional analysis, momentum, internal and external viscous flow, compressible flow, and fluid machinery.

321. Thermodynamics. (3:3:0) F, W, Sp or Su Prerequisite: Phscs 123; Math 303 or 334.

Fundamentals of thermal energy and work; principle of state, conservation of mass, conservation of energy, increase of entropy principle; application to thermal and mechanical processes.

322. Applied Thermodynamics. (3:3:1) F, W, Sp or Su Prerequisite: MeEn 273, 321, 363.

Applied engineering thermodynamics including air and steam power cycles, thermodynamic relations, and introduction to combustion and equilibrium chemical reactions.

337. Kinematics. (3:2:3) F, W, Sp or Su Prerequisite: CEEn 204; Math 303 or 334; MeEn 273.

Relative motion of links in mechanisms; velocities and accelerations of machine parts; rolling contact; cams; synthesis of mechanisms. Includes computer-aided engineering techniques.

363. Elementary Instrumentation. (3:2:3) F, W, Sp or Su Prerequisite: Phscs 123, Math 334; Engl 316 or concurrent enrollment.

Fundamentals of mechanical measuring systems; sensors, signal conditioning, statistical error analysis, dynamic response, standards.

371. Computer-Aided Engineering Applications. (3:3:0) F, Sp or Su Prerequisite: MeEn 172, 273, CEEn 203, 204.

Application of computer-aided engineering tools to design; 3-D geometry and solid modeling; applying finite element analysis, kinematic analysis, and other software to engineering analysis.

372. Analysis and Design of Machine Components. (3:2:3) F, W, Sp or Su Prerequisite: CEEn 203, MeEn 172, 250, 273, 282.

Theory, analysis, and design of machine components; applying computer-aided engineering methods.

435. Dynamic System Modeling and Analysis. (3:3:1) F, W, Sp or Su Prerequisite: Math 303 or 334; MeEn 273, 363, CEEn 204.

Formulating mathematical models for mechanical, electrical, fluid, and combined systems; numerical solution of motion equations; first- and second-order systems, frequency response, and transfer functions.

440. Heat Transfer. (3:3:1) F, W, Sp or Su Prerequisite: MeEn 312.

Fundamentals of heat transfer; basics of conduction, convection, and radiation; mass transfer by analogy; heat exchangers; computer applications to practical design and analysis problems.

475, 476. Integrated Product and Process Design 1, 2. (3:2:3 ea.) F, W Prerequisite: MeEn 321, 363, 372; senior standing (fewer than 30 hours remaining in the program) in mechanical engineering, manufacturing engineering technology, industrial design, or related disciplines with instructor's consent.

Comprehensive two-semester design experience from conception to manufacturing planning and prototype. Product development process. Economic and manufacturing considerations. Intellectual property assignment agreement required. Must be taken in consecutive fall and winter semesters.

499R. Honors Thesis. (1–6:0:0 ea.) F, W, Sp or Su

500-Level Graduate Courses (available to advanced undergraduates)

500. (MeEn-CEEn) Design and Materials Applications. (3:3:0) W Prerequisite: CEEn 203; MeEn 372 or CEEn 321; or equivalent.

Applied and residual stress; materials selection; static, impact, and fatigue strength; fatigue damage; surface treatments; elastic deflection and stability—all as applied to mechanical design.

501. (MeEn-CEEn) Stress Analysis and Design of Mechanical Structures. (3:3:0) Sp or Su Prerequisite: CEEn 321 or MeEn 372; or equivalent.

Stress analysis and deflection of structures; general bending and torsion, with computer applications to mechanical and aerospace structure design.

502. (MeEn-CEEn) Composite and Smart Structures. (3:3:0) On dem. Prerequisite: Math 303 or 334; CEEn 321 or MeEn 372; or equivalent.

Analysis of advanced composite structures; classical and energy approaches; design consideratons; introduction to smart-structures concepts.

503. (MeEn-CEEn) Plasticity and Fracture. (3:3:0) F Prerequisite: CEEn 203; MeEn 250; Math 303 or 334; senior standing or instructor's consent.

Tensor algebra; stress and deformation tensors; relationships between dislocation slip, yielding, plastic constitutive behavior, and microstructure development; cracks and linear elastic fracture mechanics.

506. (MeEn-CEEn) Continuum Mechanics and Finite Element Analysis. (3:3:0) F Prerequisite: Math 303 or 334; CEEn 321 or MeEn 372; or equivalent.

Equilibrium, constitutive, and compatibility equations; closed-form solutions from elasticity; finite element theory, programming, and usage; membrane, axisymmetric, and solid elements. Application to heat transfer, fluid mechanics, and seepage.

507. (MeEn-CEEn) Computer Analyis and Optimization of Structures. (3:3:0) W Prerequisite: Math 303 or 334; CEEn 321 or MeEn 372; or equivalents.

Matrix analysis of rods, shafts, beams, trusses, frames, and grids using the generalized stiffness method. Optimization methods for these structures. Organizing computer programs for structural analysis and structural optimization.

508. (MeEn-CEEn) Dynamics and Stability of Structures. (3:3:0) F even yr. Prerequisite: Math 303 or 334; CEEn 321 or MeEn 372; or equivalent.

Dynamic analysis of single degree-of-freedom, discrete multi-degree-of-freedom, and continuous systems. Static and dynamic stability of structures.

510. Compressible Fluid Flow. (3:3:1) F Prerequisite: MeEn 312.

One-dimensional analysis of compressible flow with area change, friction, heat transfer, shock waves, and combined effects, including experimental methods.

512. Intermediate Fluid Dynamics. (3:3:0) W Prerequisite: MeEn 312 or instructor's consent.

Review of fluid properties, Navier-Stokes equations, exact and similarity solutions, introduction to potential flows, stream functions, lift and drag, boundary layers, vorticity, and turbulence.

515. Applied Aerodynamics and Flight Mechanics. (3:3:0) Sp or Su Prerequisite: MeEn 312.

Modern applied aerodynamics, including performance, stability, and control of aerospace vehicles.

521. Intermediate Thermodynamics. (3:3:0) F Prerequisite: MeEn 322 or instructor's consent.

Equations of state, thermodynamic relations, Maxwell's equations, equilibrium of single and multiphase mixtures, chemical reactions, and product equilibrium.

522. Combustion. (3:3:0) F Prerequisite: Chem 105, MeEn 322, or instructor's consent.

Introduction to first- and second-law ideal gas combustion systems along with elementary models of homogeneous and heterogeneous premixed and/or diffusion flames.

523. (MeEn-CEEn) Design of Aircraft Structures. (3:3:0) W Prerequisite: CEEn 321 or MeEn 372; or equivalent.

Requirements, objectives, loads, materials, and tools for design of airframe structures; static behavior of thin-wall structures; durability and damage tolerance; certification and testing. Airframe component team design project.

525. Internal Combustion Engines. (3:2:3) F Prerequisite: MeEn 322 or equivalent.

Fundamental operating characteristics of internal combustion engines, spark and compression ignition. Thermodynamic cycle analysis, performance and emissions characterization, and dynamometer testing on CFR and production engines.

526. Gas Turbine and Jet Engine Design. (3:3:0) W Prerequisite: MeEn 312, 322; or equivalent.

Design and synthesis of land-based and aircraft gas turbines utilizing fluid flow and thermodynamic fundamentals. Extensive discussion of turbojet, turbofan, and turboprop engines.

531. Design of Control Systems. (3:3:0) W Prerequisite: MeEn 435.

Classical frequency response and time domain design of control systems. State variable control and computer simulation of control systems.

533. Digital Control Systems. (3:3:0) Sp Prerequisite: MeEn 531.

Design of digital controllers for mechanical systems, analysis using the z-transform, digital filter implementation, application of transform-based classical design methods, and modern state-space techniques.

534. Dynamics of Mechanical Systems. (3:3:0) F Prerequisite: MeEn 435 or equivalent.

Hamiltonian and Lagrangian dynamics, generalized coordinates, linear and angular momentum, Euler angles, rigid-body motions, and gyroscopic effects. Theory taught with applications integrated.

535. Mechanical Vibrations. (3:3:0) Su Prerequisite: MeEn 435 or equivalent.

Introduction to energy methods for system modeling, eigenvalues and mode shapes, frequency response, and spectral characterization of vibrations.

537. Advanced Mechanisms, Robotics. (3:3:0) W Prerequisite: MeEn 337 or equivalent.

Kinematics and dynamics of advanced mechanisms, such as robots, with computer simulation of mechanism motion.

538. Compliant Mechanisms. (3:3:0) Sp or Su Prerequisite: MeEn 337, 372; or instructor's consent.

Design and analysis of compliant mechanisms and compliant structures. Large-deflection analysis/force displacement relationships; mechanisms synthesis.

540. Intermediate Heat and Mass Transfer. (3:3:0) W Prerequisite: MeEn 440 or equivalent.

Analytical approaches to conduction, convection, and radiation heat transfer. Introduction to mass transfer.

541. Numerical Heat Transfer. (3:3:0) W Prerequisite: MeEn 440 or instructor's consent.

Heat transfer analysis by numerical methods. Finite difference and finite element methods, stability, and error analysis.

552. Intermediate Materials. (3:3:0) Sp or Su Prerequisite: MeEn 250, 372; or equivalent.

Mechanical behavior of engineering materials including metals, plastics, ceramics, and composites.

556. Composite Material Design. (3:3:0) W Prerequisite: MeEn 250.

Macro- and micro-mechanical analysis and design of uni- and multidirectional composite materials.

557. Corrosion. (3:3:0) F odd yr. Prerequisite: Chem 105 or equivalent.

Basic principles, eight common forms of corrosion, testing, materials, applications, modern theory, and high temperature metal-gas reactions.

558. Metallurgy. (3:3:0) F even yr. Prerequisite: MeEn 250 or instructor's consent.

Fundamental principles of physical metallurgy and their application to design.

564. Digital Instrumentation and Mechatronic Systems. (3:2:3) F Prerequisite: MeEn 363 or equivalent.

Design and analysis of instrumentation systems, fundamental sensor characteristics, and computer data acquisition; time and frequency domain modeling with analog and digital components.

570. (MeEn-CEEn) Computer-Aided Engineering Software Development. (3:3:0) F Prerequisite: MeEn 273 or C programming.

Programming methods for development of engineering software. Data structures, architecture, libraries, and graphical user interfaces, with applications to CAD systems.

572. (MeEn-CEEn-CS 557) Computer-Aided Geometric Design. (3:3:0) F Prerequisite: proficiency in C programming.

Mathematical theory of free-form curves and surfaces and solid geometric modeling. Bezier and B-spline curve and surface theory, parametric and implicit forms, intersection algorithms, topics in computer algebra, free-form deformation. Several programming projects.

575. (MeEn-CEEn) Optimization Techniques in Engineering. (3:3:0) W Prerequisite: Math 302 and FORTRAN, C, or similar computer language.

Application of computer optimization techniques to constrained engineering design. Theory and use of state-of-the-art computer routines. Robust design methods.

576. Product Design. (3:3:0) F Prerequisite: MeEn 475 or instructor's consent.

Emerging design methodology and design strategies for complex systems, including decomposition methods and sensitivity analysis. Advanced CAD/CAE/CAM technologies applied to design.

577. Design for Manufacture and Assembly. (3:3:0) W Prerequisite: MeEn 282, 372; or equivalent.

Design practice for manufacturing considerations. Surface finish, tolerances, GD&T, and inspection and gaging principles. Application of computer-aided tolerancing and inspection.

578. CAD/Cam Applications. (3:3:0) W Prerequisite: advanced FORTRAN, C, or C++.

Principles and practices involved in parametric surface and solid modeling, associativity, NC tool path generation, etc. Construction of complete CAD models for design, analysis, and manufacture.

582. Manufacturing Systems Analysis and Design. (3:3:0) F Prerequisite: MeEn 250, 282; or equivalents.

Analysis, synthesis, and control of processing and assembly operations; mathematical modeling of manufacturing processes; systems integration; applying conservation principles to processing and assembly operations.

584. Manufacturing Process Machine Design. (3:3:0) W Prerequisite: MeEn 372 or equivalent.

Applying machine design principles to manufacturing process machines and tooling; integrating machine elements; precision machine design. Designing and analyzing the effects of loading, combined stresses, and deflections on machine process capability. Sensors applied to process machines.

585. Manufacturing Competitiveness: Quality and Productivity. (3:3:0) F Prerequisite: Stat 361, MeEn 282; or equivalents.

Production strategies to improve quality, decrease cost, and increase throughput to create market advantage; effective production management systems; applying quality improvement tools to process data; theory of constraints and lean production.

586. Automation. (3:3:0) F

Determining appropriate levels of manufacturing automation based on economics and productivity. Elements of automation, including sensors, robots, conveyors, and part feeders.

595R. Special Topics in Mechanical Engineering. (1–18:2:0 ea.) F, W, Sp, Su Prerequisite: department chair's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Mechanical Engineering Faculty

Professors

Adams, Brent L. (1999) BES, U. of Utah, 1974; MS, PhD, Ohio State U., 1976, 1979.

Chase, Kenneth W. (1968) BES, MS, Brigham Young U., 1962, 1964; PhD, U. of California, Berkeley, 1972.

McQuay, Mardson Queiroz (1987) BS, MS, Brigham Young U., 1983, 1984; PhD, Carnegie-Mellon U., 1987.

Mortensen, Kay S. (1968) BS, MS, Utah State U., 1962, 1963; PhD, U. of Utah, 1967.

Parkinson, Alan R. (1982) BS, Brigham Young U., 1977; MS, PhD, U. of Illinois, 1979, 1982.

Red, W. Edward (1983) BA, BSME, Rice U., 1965; PhD, Arizona State U., 1972.

Smith, Craig C. (1980) BES, MS, Brigham Young U., 1969, 1970; PhD, Massachusetts Inst. of Technology, 1973.

Todd, Robert H. (1989) BS, California State U., Northridge, 1964; MS, PhD, Stanford U., 1965, 1971.

Webb, Brent W. (1986) BS, MS, Brigham Young U., 1981, 1982; PhD, Purdue U., 1986.

Associate Professors

Blotter, Jonathan D. (2002) BS, MS, Utah State U., 1991, 1993; PhD, Virginia Polytechnic Institute and State U., 1996.

Bons, Jeffrey P. (2002) BS, MS, PhD, Massachusetts Inst. of Technology, 1988, 1990, 1997.

Bowman, W. Jerry (1997) BS, Brigham Young U., 1977; MSE, U. of Central Florida, 1982; PhD, Air Force Inst. of Technology, 1987.

Cox, Jordan (1986) BA, MS, Brigham Young U., 1983, 1984; PhD, Purdue U., 1991.

Eastman, Paul F. (1985) BA, PhD, U. of Utah, 1960, 1965.

Evans, Mark S. (1995) BS, U. of Utah, 1982; MS, PhD, Rensselaer Polytechnic Inst., 1984, 1987.

Howell, Larry L. (1994) BS, Brigham Young U., 1987; MS, PhD, Purdue U., 1991, 1993.

Jensen, C. Gregory (1983) BS, MS, Brigham Young U., 1979, 1982; PhD, Purdue U., 1993.

Magleby, Spencer P. (1989) BS, MS, Brigham Young U., 1983, 1983; PhD, U. of Wisconsin, Madison, 1988.

McLain, Timothy W. (1995) BS, MS, Brigham Young U., 1986, 1987; PhD, Stanford U., 1995.

Rotz, Christopher A. (1985) SB, SM, PhD, Massachusetts Inst. of Technology, 1973, 1976, 1978.

Sorensen, Carl D. (1987) BS, Brigham Young U., 1981; PhD, Massachusetts Inst. of Technology, 1985.

Tree, Dale R. (1994) BS, Brigham Young U., 1986; MS, Purdue U., 1988; PhD, U. of Wisconsin, Madison, 1992.

Assistant Professors

Jones, Matthew R. (2001) BS, Brigham Young U., 1988; MS, PhD, U. of Illinois, 1990, 1993.

Maynes, R. Daniel (1997) BS, MS, Utah State U., 1992, 1993; PhD, U. of Utah, 1997.

Adjunct Faculty

Beckwith, Scott W. (1990) BS, Texas A & M U., 1964; MS, California Inst. of Technology, 1965; PhD, Texas A & M U., 1974.

Germane, Geoffrey J. (1979) BS, MS, Rose-Hulman Inst. of Technology, 1972, 1975; PhD, Brigham Young U., 1978.

Simonsen, John M. (1954) BSME, U. of Utah, 1950; PhD, Purdue U., 1952, 1955.

Warner, Charles Y. (1966) BES, MS, Brigham Young U., 1957, 1963; PhD, U. of Michigan, 1966.

Woolley, Ronald L. (1983) BES, MS, Brigham Young U., 1966, 1968; PhD, Stanford U., 1974.

Emeriti

Andersen, Blaine W. (1970) BS, U. of Utah, 1949; MS, PhD, U. of Illinois, 1951, 1953.

Cannon, John N. (1957) BS, MS, U. of Utah, 1952, 1955; PhD, Stanford U., 1965.

Free, Joseph C. (1961) BES, Brigham Young U., 1958; MS, California Inst. of Technology, 1961; PhD, Massachusetts Inst. of Technology, 1967.

Heaton, Howard S. (1963) BES, U. of Southern California, 1957; MS, PhD, Stanford U., 1959, 1963.

Polve, James H. (1969) BS, U. of Utah, 1948; MS, Princeton U., 1951; PhD, U. of Arizona, 1966; ME, U. of Utah, 1954.

Raisor, E. Max (1968) BS, MS, Brigham Young U., 1968, 1975.

Simmons, Val E. (1969) BS, U. of Utah, 1964; MS, Brigham Young U., 1967; PhD, Utah State U., 1970.

Tolman, Wilford J. (1960) BS, MS, Brigham Young U., 1960, 1964.

Ulrich, Richard D. (1968) BS, MS, PhD, Purdue U., 1954, 1955, 1959.

Wilkes, Doran F. (1958) BS, MS, Utah State U., 1951, 1955; EdD, U. of Missouri, Columbia, 1966.

Wille, Milton G. (1958) BA, BES, Brigham Young U., 1957, 1957; MS, California Inst. of Technology, 1958; PhD, U. of Michigan, 1964.

Media Arts

See Theatre and Media Arts.

Microbiology and Molecular Biology

Alan R. Harker, Chair
775 WIDB, (801) 422-2889
Internet: http://mmbio.byu.edu

College of Biology and Agriculture Advisement Center
380 WIDB, (801) 422-3042

Admission to Degree Program

All degree programs in the Department of Microbiology and Molecular Biology are open enrollment. However, special limitations apply for clinical laboratory science.

The Discipline

The Microbiology and Molecular Biology Department offers programs leading to specialization in immunology, virology, parasitology, medical microbiology, microbial genetics, microbial physiology, clinical laboratory science, environmental and industrial microbiology, general microbiology, molecular biology, forensic science, molecular cytogenetics, and diagnostic molecular genetics.

Career Opportunities

Graduates are employed in a wide variety of positions in industry, hospitals, government agencies, and universities. Majors from this department are an excellent preprofessional course of study for those interested in medicine, dentistry, law, or business.

The following courses are recommended for those students interested in graduate and professional programs:

Chem 351, 352, 353, 481.
Math 119 or higher.
Phscs 105, 106, 107, 108.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS	Clinical Laboratory Science
BS	Microbiology
BS	Molecular Biology
Minors	Microbiology
	Molecular Biology

Students should see their advisor for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Microbiology
MS	Molecular Biology
PhD	Microbiology
PhD	Molecular Biology

For more information see the BYU 2003–2004 Graduate Catalog.

BS Clinical Laboratory Science (65 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Students who want to practice clinical laboratory science/medical technology in diagnostic laboratories or pursue related options choose this degree. The program in clinical laboratory science is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631, [773] 714-8880).

Major Requirements

1. Complete the following biology core requirements:
   Biol 120, 220, 240, 241, 340, 360.
2. Complete the following microbiology core requirements:
   MMBio 165, 265, 352, 353, 354.
3. Complete the following:
   MMBio 102, 392, 393, 394, 395, 407, 417, 420, 421, 453, 491.
4. During one semester and one term, complete at least 2 hours from the following:
   MMBio 399R.
5. Complete the following:
   Chem 105, 106, 107, 152, 281.

Recommended Courses

Engl 316.
Stat 221.

*Hours include courses that may fulfill GE or university requirements.

BS Microbiology (59–62 hours*)

This is the preferred degree for microbiology majors who desire an advanced degree (master's or doctorate) in microbiology.

Major Requirements

1. Complete the following biology core requirements:
   Biol 120, 220, 240, 241, 340, 360, 420.
2. Complete the following microbiology core requirements:
   MMBio 165, 265, 350, 351, 352, 353, 354, 355, 365.
3. Complete at least 12 hours from the following:
   Biol 350, 421.
   Chem 481, 482.
   MMBio 407, 417, 430, 441, 442, 451, 452, 453, 454, 494R.
   NDFS 361.
   PAS 282.
4. Complete the following:
   Chem 105, 106, 107, 351, 352.
5. Complete at least 1 hour of the following:
   Chem 353.
6. Complete one of the following options:
   Either Phscs 105, 106.
   Or Stat 221.

Recommended Course

Engl 316.

*Hours include courses that may fulfill GE or university requirements.

BS Molecular Biology (57–64 hours*)

Major Requirements

1. Complete the following biology core requiremeents:
   Biol 120, 240, 241, 340, 360, 420.
2. Complete the following molecular biology core requirements:
   MMBio 390R, 430, 441, 442, 490R.
3. Complete two registrations of the following (not same semester or term) of 1–3 hours each as approved by mentor:
   MMBio 494R.
4. Complete at least 12 hours from the following:
   Chem 461, 468, 482, 581, 584, 586.
   MMBio 350, 351, 352, 354, 451, 452, 454.
   PDBio 482, 582.
5. Complete the following:
   Chem 105, 106, 107, 351, 352, 481.
6. Complete at least one hour from the following:
   Chem 353.
7. Complete one of the following options:
   Either Phscs 105, 106.
   Or Stat 221.

Recommended Courses

Engl 316.
Phscs 107, 108.

*Hours include courses that may fulfill GE or university requirements.

Minor Microbiology (15 hours)

Minor Requirements

Complete the following:
MMBio 165, 265, 350, 351, 352, 353, 354, 355, 365.

Minor Molecular Biology (14 hours, plus prerequisites in coupled major)

Minor Requirements

1. Complete the following:
   Chem 481.
   MMBio 430, 441, 442.
2. Complete at least 3 hours from the following:
   Biol 494R.
   Chem 461, 468, 482, 581, 584, 586.
   InBio 494R.
   MMBio 350, 351, 352, 354, 390R, 451, 452, 454, 490R, 494R.
   NDFS 494R.
   PAS 494R.
   PDBio 482, 494R, 582.

Note: Be aware of prerequisites for the above courses (usually filled in a coupled major).

Microbiology and Molecular Biology (MMBio)

Undergraduate Courses

102. Introduction to Clinical Laboratory Techniques. (1:0:3) F, W
Hospital laboratory techniques.

165. Introductory Laboratory Methods. (1:0:3) F, W
Introduction to laboratory techniques.

221. General Microbiology. (3:3:0) F, W, Sp Independent Study also. Honors also. Prerequisite: any chemistry course and any biology course.
Microbial world, emphasizing communicable diseases, their causes, and control. Recommended for students seeking a liberal education in microbiology who do not have the prerequisites to take the more advanced courses.

222. General Microbiology Laboratory. (1:0:2) Prerequisite: MMBio 221 or concurrent enrollment.

265. Intermediate Laboratory Methods. (1:0:3) F, W Prerequisite: MMBio 165.
Intermediate laboratory techniques.

350. Microbial Genetics. (2:2:0) F, W Prerequisite: Biol 360.
General genetics of ceil structure and function.

351. Microbial Physiology 1. (2:2:0) F, W Prerequisite: Biol 360.
Introduction to the principles of bacterial physiology.

352. Immunology 1. (2:2:0) F, W Prerequisite: Biol 360.
Introduction to fundamentals of immunology.

353. Medical Microbiology 1. (2:2:0) F, W Prerequisite: Biol 360, MMBio 352; or concurrent enrollment.
Introduction to infectious diseases concentrating principally on the basic mechanisms of pathogenesis for bacterial, viral, parasitic, and fungal diseases.

354. Virology 1. (2:2:0) F, W Prerequisite: Biol 360.
Basic principles of virology emphasizing animal virus replication and human infections.

355. Microbial Ecology. (2:2:0) F, W Prerequisite: Biol 360.
Principles of prokaryotic ecology; microbial communities in their natural habitats; role of microorganisms in biogeochemical cycling.

362R. Survey of Careers in Microbiology. (1:Arr.:Arr. ea.) F, W
Lectures and field trips surveying career choices.

365. Advanced Laboratory Methods. (1:0:3) F, W Prerequisite: MMBio 265.
Advanced laboratory techniques.

390R. Readings in Molecular Biology. (1:1:0 ea.) W Prerequisite: Biol 360.
Selected readings in molecular biology.

392. Hematology. (2.5:2.5:1) W Prerequisite: clinical laboratory science program acceptance.
Normal and abnormal hematology.

393. Immunohematology and Coagulation Theory. (2.5:2.5:1) W Prerequisite: clinical laboratory science program acceptance.
Theory and practice of bloodbanking and coagulation theory.

394. Practical Hematology. (2:0:7) W Prerequisite: MMBio 392 or concurrent enrollment.
Laboratory to accompany MMBio 392; medical laboratory techniques in hematology.

395. Practical Immunohematology and Coagulation Theory. (2:0:7) W Prerequisite: MMBio 393 or concurrent enrollment.
Laboratory to accompany MMBio 393; medical laboratory techniques in immunohematology and coagulation theory.

399R. Academic Internship. (1–9:0:40 ea.) F, W, Sp, Su Prerequisite: mentor's consent.
Approved experiential learning.

407. Clinical Microbiology. (4:2:6) W Prerequisite: MMBio 453.
Approaches to laboratory diagnosis of infectious diseases.

417. Medical Parasitology. (3:2:3) F Prerequisite: Biol 100 or equivalent.
Pathogenesis, diagnosis, and epidemiology of human parasitic diseases. Laboratory included.

420. Pathophysiology and Laboratory Diagnosis in Clinical Chemistry. (5:4:2) F Prerequisite: clinical laboratory science program acceptance.
Laboratory diagnosis of disorders involving the major systems of the human body.

421. Laboratory Techniques in Clinical Chemistry and Diagnostic Molecular Biology. (4:0:14) F Prerequisite: concurrent enrollment in MMBio 420.
Medical laboratory techniques in urinalysis, clinical chemistry, and diagnostic molecular genetics.

430. Advanced Cell Biology. (3:3:0) F Prerequisite: Biol 360; bioscience major status.
Molecular genetics, cell biology, and developmental biology.

441. Advanced Molecular Biology. (3:3:0) W Prerequisite: Biol 240, Chem 352.
Molecular biology of gene structure and expression in prokaryotic and eukaryotic organisms.

442. Advanced Molecular Biology Laboratory. (2:0:6) W Prerequisite: Biol 241; MMBio 441 or concurrent enrollment.
Laboratory to accompany MMBio 441.

451. Microbial Physiology 2. (2:2:0) W Prerequisite: MMBio 351.
Principles of bacterial physiology, including structure-function relationships, gene regulation, and biochemical processes. Unique aspects of prokaryotic metabolism.

452. Immunology 2. (2:2:0) F Prerequisite: MMBio 352.
Advanced concepts of immunological processes.

453. Medical Microbiology 2. (3:3:0) F Prerequisite: MMBio 353.
Pathogenesis of diseases in humans caused by bacteria.

454. Virology 2. (2:2:0) W Prerequisite: MMBio 354.
Selected molecular aspects of virus life cycles and disease processes.

490R. Molecular Biology Seminar. (1:1:0 ea.) W Prerequisite: MMBio 441; senior status.
Critical examination of current literature and research in molecular biology.

491. Concept Applications in Laboratory Medicine. (1:1:0) F Prerequisite: acceptance into clinical laboratory science program.
Case presentations of various medical disorders.

494R. Mentored Research. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: mentor's consent.
Mentored research.

499R. Senior Honors Thesis. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: topic to be cleared with Honors Program and Department of Microbiology and Molecular Biology.

500-Level Graduate Courses (available to advanced undergraduates)

511. Selected Readings in Immunology. (1:1:0) F Prerequisite: MMBio 452 or equivalent.
Current literature in immunology.

512. Selected Readings in Viral Pathogenesis. (1:1:0) F Prerequisite: MMBio 454 or equivalent.
Current literature in viral pathogenesis.

516. Selected Readings in Emerging Diseases. (2:2:0) W Prerequisite: MMBio 453; 454 or 417; or equivalents.
Factors and mechanisms of emerging and reemerging infectious diseases.

518. Selected Readings in Special Pathogens. (2:2:0) W Prerequisite: MMBio 453 or equivalent.
Current literature in special pathogens.

519. Selected Readings in DNA Diagnostics. (2:2:0) W Prerequisite: MMBio 441 or equivalent.
Current readings in molecular identification of relationship cases and infectious disease agents.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Microbiology and Molecular Biology Faculty

Professors

Anderson, Shauna C. (1974) AS, Ricks Coll., 1965; BS, Brigham Young U., 1967; MS, U. of Utah, 1973; PhD, U. of Washington, 1984.
Bradshaw, William S. (1970) BA, Harvard U., 1963; PhD, U. of Illinois, 1968.
Harker, Alan R. (1994) BS, PhD, U. of Utah, 1976, 1982.
Jensen, James B. (1989) BS, MS, Brigham Young U., 1970, 1972; PhD, Auburn, U., 1976.
Johnson, F. Brent (1972) BS, MS, PhD, Brigham Young U., 1966, 1967, 1970.
Leavitt, Ronald W. (1977) BA, U. of California, Riverside, 1967; MS, U. of Illinois, 1969; PhD, U. of California, San Diego, 1975.
Murray, Byron K. (1983) AS, Ricks Coll., 1964; BS, MS, PhD, Brigham Young U., 1966, 1969, 1971.
Nielsen, Brent L. (2000) BS, Brigham Young U., 1980; PhD, Oregon State U., 1985.
O'Neill, Kim L. (1992) BSc, DPhil, New U. of Ulster, Northern Ireland, 1984, 1986.
Woodward, Scott R. (1989) BS, PhD, Utah State U., 1980, 1983.

Associate Professors

Crandall, Keith A. (1995) BA, Kalamazoo Coll., 1987; AM, PhD, Washington U., 1993.
Kooyman, David L. (1997) BS, MS, California State Polytechnic U., Pomona, 1982, 1986; PhD, Ohio U., 1993.

McCleary, William R. (1995) BS, Brigham Young U., 1982; PhD, U. of California, Berkeley, 1990.
Robison, Richard A. (1991) BS, MS, PhD, Brigham Young U., 1978, 1980, 1988.

Associate Teaching Professors
Breakwell, Donald P. (2001) BS, Brigham Young U., 1986; MS, PhD, Purdue U., 1988, 1992.
Cockayne, Susan (1982) BS, MS, U. of Utah, 1972, 1979; PhD, Brigham Young U., 1990.

Assistant Professors
Bridgewater, Laura C. (1999) BS, Brigham Young U., 1989; PhD, George Washington U., 1995.
Evans, R. Paul (1987) BS, Brigham Young U., 1995; PhD, Medical Coll. of Virginia, 1983.

Part-time Faculty
Gordon, Jan
Hodson, Kristine
Poulsen, Keila
Seeley, Deborah

Adjunct Assistant Professors
Frame, P. Jackson

Adjunct Clinical Professors
Freestone, Lovell, Thorn, Urie

Adjunct Clinical Instructors
T. Jackson, Neibaur, Talbot

Laboratory Support Services
Lee, John D. (1972) BS, MS, Brigham Young U., 1972, 1976.

Emeriti
Beck, Jay V. (1951) BA, MA, Brigham Young U., 1933, 1936; PhD, U. of California, Berkeley, 1940.
Bradshaw, Willard H. (1961) BS, MS, Brigham Young U., 1952, 1953; PhD, U. of California, Berkeley, 1957.
Donaldson, David M. (1955) BS, MS, PhD, U. of Utah, 1950, 1952, 1954.
Jensen, Marcus M. (1969) BS, MS, Utah State U., 1952, 1954; PhD, U. of California, Los Angeles, 1961.
North, James A. (1965) BS, MS, Brigham Young U., 1958, 1960; PhD, U. of Utah, 1964.
Sagers, Richard D. (1958) BS, MS, Brigham Young U., 1954, 1955; PhD, U. of Illinois, 1958.
Wright, Donald N. (1969) BS, U. of Utah, 1958; PhD, Iowa State U. of Science and Technology, 1964.

Military Science (Army ROTC)

Lieutenant Colonel Reid E. Grawe, Chair
320 ROTC, (801) 422-3601

Admission to Program

Students must be accepted by the Department of Military Science into the program.

The Discipline

The Army ROTC Leadership Excellence Program is designed to produce highly qualified commissioned officers in the U.S. Regular Army, the U.S. Army Reserve, or the U.S. Army National Guard. Students specialize in the major field of their choice and graduate with the ability to function as a junior executive.

Career Opportunities

Officer in the U.S. Army in the career field of:
- Adjutant General's Corps
- Air Defense Artillery
- Armor
- Aviation
- Chemical Corps
- Engineers
- Field Artillery
- Finance Corps
- Infantry
- Judge Advocate General's Corps
- Medical Service Corps
  - Nurses, doctors, and administrators
- Military Intelligence
- Military Police
- Ordnance Corps
- Quartermaster Corps
- Signal Corps
- Transportation Corps

General Information

Textbooks, Uniforms, and Allowances. All textbooks, uniforms, and training materials are furnished by the U.S. Army. Those in the advanced course receive a $350 to $400 monthly allowance and approximately $800 for the camp period, plus travel to and from the camp.

Army ROTC Scholarship Program. Tuition assistance is available on a competitive basis. Senior students in high school may qualify for a four-year scholarship. College students may also qualify for a four-, three-, or two-year scholarship. The scholarship provides for tuition, fees, a textbook allowance, and from $300 to $400 per month (up to ten months per year) for the period of the scholarship. Students who qualify must complete their degree program prior to their twenty-seventh birthday. Contact the Military Science Department for application procedures and specifics.

SMP Program. A program allowing for simultaneous membership in the U.S. Army Reserve or National Guard that provides over $500 per month in additional pay as an officer trainee is available.

Extracurricular Activities. Army ROTC cadets extend academic and laboratory associations into a variety of extracurricular ROTC activities. Among these are the Ranger Challenge, Army Color Guard, Cannon Crew, annual Patriot Ball, and many school service projects performed by the cadet battalion.

LDS Missions. Students, including scholarship recipients, who wish to serve a two-year LDS mission can do so most

conveniently between their freshman and sophomore years. This allows students to be on campus during the spring of their sophomore year to facilitate their selection for the advanced course. Interruptions of the program at other times for a mission, however, can be arranged by obtaining individual approval from the professor of military science.

Leadership Laboratory and Course Fee. Each course requires a corresponding leadership lab, which meets on Thursdays from 2:00 to 5:00 p.m. The labs require physical activity, including but not inclusive to the following: land navigation, mountaineering, rope bridging, marksmanship, the leadership reaction course, physical fitness training, and field training exercises. Students are also required to participate in one weekend leadership lab per semester. A course fee is required of each participating student to cover cadet activity expenses.

Graduation Requirements in Wellness. Students in the Army ROTC Program can complete the Wellness requirements listed in the General Education section of this catalog by participating in the leadership laboratory for eight semesters. Additionally, the student is expected to pass the Army Physical Fitness Test. Physical education credit can be received for participation in the ROTC Physical Training Program. An Army ROTC instructor has complete details.

Program of Instruction. The ROTC Leadership Excellence Program is designed to complement the civilian goal of acquiring a baccalaureate degree in a personal course of study while enabling students to develop the knowledge, skills, and attitudes for transition into one of the Army's seventeen branches upon commissioning. The program also enables those who plan a civilian career to fulfill military obligations while serving as an officer. Following the completion of active service, ROTC graduates reflect leadership training as leaders in business, civic, and community affairs.

Program Requirements

1. The traditional Army ROTC Leadership Excellence Program extends over a four-year period compatible with normal progression through four years of college. It consists of two phases: a two-year basic course during the freshman and sophomore years and an advanced course designed for completion during the normal junior and senior years. Also included is a five-week advanced camp normally attended in the summer before the senior year. (Under some circumstances it can be attended in the summer at the end of the senior year.) Students may receive academic credit for the first two years of ROTC by attending the basic camp in the summer before the start of their junior year. Such actions must be approved in advance by the professor of military science.

   A two-year program is also offered that enables qualified students (prior service or placement credit for basic course) with 60 semester hours (academic junior) to complete all requirements for a U.S. Army commission in two years of college. Applicants for the two-year program may be upper-division or graduate students, provided a minimum of four semesters remain at BYU at the time of entry into the program. Students must complete a physical examination and other associated requirements during the year before contracting. Two-year students normally process for admission during the first month of the winter semester of the sophomore year and enter the program at the beginning of the junior year.

2. Entering either the four-year or three-year program incurs no military obligation whatever until such time as students sign their advanced course contract at the beginning of the junior year, unless they are an Army ROTC scholarship student. At that time they agree to enlist in the U.S. Army Reserve Control Group for a period of eight years; they are then sworn into the reserve and begin to receive the monthly $300 to $400 subsistence allowance.

   Veterans who have had one or more years of active duty may qualify for direct entry into the advanced course by receiving placement credit for the basic course from the professor of military science.

3. Students must be or have applied to be citizens of the United States. Non-U.S. citizens may apply for enrollment on a case-by-case basis but cannot be commissioned until they are U.S. citizens.

4. To receive a commission as a second lieutenant in the U.S. Army, students must earn a baccalaureate degree and be commissioned before their thirtieth birthday. Waivers of age may be approved by the Department of the Army under special circumstances. Those who are in a five-year academic program, such as engineering, may complete their Army ROTC courses at any point before graduation.

5. Upon commissioning, the new second lieutenant incurs an eight-year obligation to the U.S. Army, which may be filled by serving on Active Duty, in the U.S. Army Reserve, National Guard, Individual Ready Reserve (IRR), or various combinations of the above.

6. Complete the following basic courses:
   MilS 120, 121, 220, 221.

7. Complete the following advanced courses:
   MilS 320, 321, 420, 421.

   Note 1: Two-year students should complete the 300- and 400-level courses.

   Note 2: Credit for the 100- and 200-level courses may be granted by registering for MilS 120, 121, 220, and 221 during spring and summer terms and then completing the six-week leaders training course at Fort Knox, Kentucky, beginning in June following the sophomore year. Students may receive placement without credit for prior service.

   Note 3: Each course listed must have a concurrent leadership laboratory.

8. Professional Military Education (PME): Before being commissioned, each senior cadet must complete one course in each of the following three categories:
   a. Military history:
      Hist 220, 221, 375, 377.
      PlSc 322, 376, 377.
   b. Writing and reading:
      Engl 115, 216, 218R, 252, 316.
   c. Computer literacy:
      CS 103, 142, 143, 235, 236, 240, 252.

Note: Courses not specified above may satisfy the requirement but must be approved by the professor of military science.

Minor Military Science (16 hours)

Minor Requirements

Complete the following:
MilS 320, 321, 420, 421.

Military Science (Army ROTC) (MilS)

Undergraduate Courses

120. Foundations of Officership. (2:1:3) F
Issues and competencies central to a commissioned officer's responsibilities. Framework for understanding officership, leadership, and Army values and "life skills," such as physical fitness and time management. Lab included. Fee.

121. Basic Leadership. (2:1:3) W
Basic leadership fundamentals such as problem solving, communications, briefings and effective writing, goal setting, techniques for improving listening and speaking skills, and an introduction to counseling. Lab included. Fee.

220. Individual Leadership Studies. (3:2:3) F
Identifying successful leadership characteristics through observing others and self in experiential learning exercises. Students record observed traits (good and bad) in a dimensional leadership journal and discuss in small-group settings. Lab included. Fee.

221. Leadership and Teamwork. (3:2:3) W
Building successful teams; various methods for influencing action; effective communication in setting and achieving goals; importance of timing the decision; creativity in problem solving; and obtaining team buy-in through immediate feedback. Lab included. Fee.

320. Leadership and Problem Solving. (4:3:3) F
Self-assessing leadership style, developing personal fitness regimen, and learning to plan and conduct individual/small unit tactical training while testing reasoning and problem-solving techniques. Direct feedback received on leadership abilities. Lab included. Fee.

321. Leadership and Ethics. (4:3:3) W
Role communications, values, and ethics play in effective leadership. Topics include ethical decision making, consideration of others, spirituality in the military, and Army leadership doctrine. Improving oral and written communications abilities. Lab included. Fee.

325R. Staff Organization and Operations. (1–2:0:Arr. ea.) F, W, Sp
Prerequisite: enrollment in military science.
Special project staff work for joint Army/Air Force campus ceremonies, leadership labs, field training exercises, and training camps.

420. Leadership and Management. (4:3:3) F
Developing proficiency in planning and executing complex operations, functioning as a member of a staff, and mentoring subordinates. Training management, methods of effective staff collaboration, and developmental counseling techniques. Lab included. Fee.

421. Officership. (4:3:3) W
Case study analysis of military law and practical exercises on establishing an ethical command climate. Semester-long Senior Leadership Project requires planning, organizing, collaborating, analyzing, and demonstrating leadership skills. Lab included. Fee.

425R. Ranger Preparation. (2:1:5) F
Participation in Army ROTC Ranger Challenge program. Advanced military training with practical application of skills taught in MilS 120–421.

Military Science Faculty

Professor of Military Science
Grawe, Reid E., LTC (1999) BS, Brigham Young U., 1981; MBA, Syracuse U., 1990.

Assistant Professors of Military Science
Kramer, Todd E., CPT (2003) BS, U. of Tennessee, Knoxville, 1988.
Namauu, Noel M. B., CPT (2001) BS, U. of Utah, 1992; MS, Embry-Riddle Aeronautical U., 1999.
Verhoef, Erik H., CPT (2000) BS, Utah State U., 1994.

Modern Near Eastern Studies

See International and Area Studies.

School of Music

David M. Randall, Director
C-550 HFAC, (801) 422-3083
www.byu.edu/music/

College of Fine Arts and Communications Advisement Center
D-444 HFAC, (801) 422-3777
www.byu.edu/cfac/advisement/

Admission to Degree Program

Enrollment in the School of Music's degree programs is limited. Please consult the General Information section below and visit the college advisement center for details.

The Discipline

The School of Music respects and celebrates the historic position of music at the heart of a liberal education and the gospel. From ancient times, music has proven its power to enlighten the understanding, strengthen the spirit, and shape character. With this power music civilizes and invigorates any society in which it is cultivated.

In the School of Music the student learns self-discipline through rigorous practice in pursuit of accurate and passionate performance. The student also learns cooperation and mutual sensitivity through ensemble work. In the study of music theory and history, the student comes to hear and appreciate the grammar and syntax of various musical languages, to distinguish nuances of style, and to grasp the ways in which styles intertwine with ideas.

Students learn in a variety of situations: private lessons, small seminars, multimedia labs, and large lectures. These are offered in a holistic approach that embraces academic rigor, intuitive insight, physical grace, and spiritual eloquence.

Career Opportunities

The School of Music leads its students toward careers in performance, studio teaching, music education, recording and sound technology, arts management, music journalism, composition, music therapy, and other music-related professions. Because the music curriculum is rigorous, it is also an excellent pre-professional course of study for those interested in fields as diverse as law, business, library science, or medicine. Whatever degrees one obtains, however, an education in music pertains not only to earning a living through the art but also using the art to enhance one's satisfaction and joy in living.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0

Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA Music
BFA Music Dance Theatre
BM Jazz Studies
BM Media Music Studies
BM Music Composition
BM Music Education
- Emphases:
  - K–12 Choral
  - K–12 Instrumental
  - Elementary Music Specialist

BM Performance
- Emphases:
  - Brass
  - Combined Piano and Organ
  - Organ
  - Percussion
  - Piano
  - String
  - Vocal
  - Woodwind

BM Sound Recording Technology
Minor Music

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Music
MM Music

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

1. Admission applications to the School of Music must be received by January 15.
2. All entering students (including transfer students) must pass a performance audition on their major instrument (or voice). Live auditions are held on the last Saturday of January. Students who cannot attend the live audition must submit an audio or VHS videotape for consideration; these tapes must be received by January 15. See the School of Music office (C-550 HFAC) for further details regarding the audition process and requirements, or call (801) 422-3083.
3. All entering students must also pass an aural skills examination. They may take this examination in one of three ways: (1) in a group, at admissions auditions on the last Saturday of January; (2) in a group, during fall semester New Student Orientation; or (3) individually, at the BYU Testing Center (call (801) 422-6129 to schedule times) and, in special circumstances, by proctor at other locations (call the School of Music office to arrange). Students may take the exam as many times as desired but may not enroll in core theory courses until the exam is passed.
4. All entering students must take a piano diagnostic examination to determine their keyboard skills. The exam, which is administered individually, may be taken at admissions auditions in January or during fall semester New Student Orientation. If deficiencies are found, students can fulfill the piano proficiency requirement either by (1) taking one or both of Music 221, 222 as indicated by the diagnostic examination, or, in a few cases, by (2) retaking the diagnostic examination after skills have improved. Piano and organ performance majors fulfill this requirement by taking Music 264, 265. The piano proficiency requirement must be passed by the end of the sophomore year. (Call the School of Music office for more details.)
5. Upon acceptance as a music major, each student must establish a file in the college advisement center.
6. Students who pass either part of the AP Music Test with at least a score of 4 should check with the college advisement center before registering for core courses.
7. All major performance instruction must be in the same instrument (or voice).
8. All music majors must complete an examination before a faculty jury on their major instrument (or voice) near the end of each semester of performance study. (With the approval of the faculty, students may elect to substitute a juried public recital for a jury examination.) Students wanting to enter Music 360R or 460R (normally after the sophomore year) must first be granted approval to do so by a faculty jury.
9. All music majors must fulfill the ensemble requirements of their degree programs (as described below). Students may not, however, enroll in more than two conducted or directed ensembles per semester. (Chamber music and jazz combos are coached, not directed, and therefore are exempt from this limitation.) Large ensemble requirements may be filled by enrolling in the following as appropriate for the instrument or voice: Music 311R, 312R, 313R, 314R, 315R, 317R, 325R, 326R, 337R, or 338R. In addition, the following may count, with restrictions: Music 343R for guitarists only; 331R, 332R, 333R, 334R for rhythm section players only; or Music 344R for keyboardists only.
10. All transfer students must have their previous university work in music evaluated by the appropriate BYU School of Music faculty members to determine what credits will be accepted in the transfer (see the college advisement center for referrals). We subscribe to the policy of the National Association of Schools of Music and carry no obligation to accept upper-division music credits from other member schools.
11. If any course in a music major is failed twice, the student is dropped from the School of Music.

12. Students temporarily leaving the School of Music or private studio instruction (for a mission, Study Abroad, etc.) for one or more semesters before their major requirement is completed are required to file a deferment form with the School of Music office (C-550 HFAC). Failure to do so may result in the loss of any music scholarship as well as private studio instruction in the semester or two following the student's return to BYU.
13. It is expected that School of Music students attend at least eight concerts and two School of Music–sponsored lectures each semester, in the process seeking greater exposure to a more diverse variety of music literature and thought. For more information see the "Undergraduate Handbook" published by the School of Music.

BA Music (57–76 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

The bachelor of arts degree offers a broad liberal arts education with a concentration in music. It also provides excellent preparation for a variety of professional music careers or graduate work in theory or musicology.

Major Requirements

1. See the college advisement center to obtain information concerning official acceptance into a specific degree program.
2. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
3. Complete one of the following options:
   a. Instrumentalists complete the following:
      Music 250, 260R (6 hours).
   b. Vocalists complete the following:
      Music 161, 260R (6 hours).
4. Complete at least 1 hour of large ensemble each semester for four semesters.
5. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
6. Complete 3–20 prerequisite hours in foreign language studies as required to meet the GE Foreign Language requirement. (Prerequisite courses may be waived for those students who have equivalent language experience.)
7. Complete one upper-division literature course in a foreign language (320 or higher).
8. Complete one course from a GE Arts and Letters requirement outside music (in addition to the foreign-language literature course and to the GE requirement) or one humanities course outside music, approved by faculty advisor.
9. Complete two of the following music elective courses:
   Music 203, 204, 481, 483, 500, 503, 581, 583, 595, 596.

*Hours include courses that may fulfill GE or university requirements.

BFA Music Dance Theatre (74.5 hours*)

This is a limited-enrollment program requiring program admissions approval. Please see the College of Fine Arts and Communications Advisement Center for information regarding requirements for admission to this major.

The BFA in music dance theatre (MDT) is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of its School of Music and Department of Theatre and Media Arts and the College of Health and Human Performance's Department of Dance.

Major Requirements

1. Live and taped auditions for entrance into the MDT major are held in the January preceding fall registration. Students may begin the MDT major in the fall only.
2. Pass a proficiency examination in each of the three areas at the end of each semester.
3. Complete at least 40 hours in residence at BYU.
4. Dance technique courses require a grade of B– for advancement to the next level.
5. Complete the following:
   Music 113, 161, 261, 290.
6. Complete 4 hours of the following:
   Music 260R.
7. Complete 4 hours of the following:
   Music 360R.
8. Complete the following:
   Dance 131, 135, 231, 235, 241R, 243R, 244R, 290, 291R, 331, 361, 363, 390R.
9. Complete the following:
   TMA 114, 121, 123, 124, 229, 267, 427.
10. Complete the following MDT Seminar courses:
    Music 328.
    Dance 328.
    TMA 328.
11. Complete the following History of Music Dance Theatre courses:
    Music 300.
    Dance 300.
    TMA 300.
12. Complete the following Senior Performance Project courses:
    Music 426.
    Dance 426.
    TMA 426.
13. Complete 11.5 hours of electives from the following music, dance, or theatre courses:
    Music 186, 319R, 360R, 363, 386R, 399R, 402A,B, 472.
    Dance 335, 340R, 362, 368R, 390R, 391R, 393R, 399R, 429R, 440R, 462, 468R, 490R, 493R, 494R, 495R, 498R, 540R, 562R, 563R.
    TMA 100, 215R, 223, 224, 225, 236, 322, 324, 325, 329, 336, 399R, 420R, 422, 424, 425, 429, 443R, 515R.

*Hours include courses that may fulfill GE or university requirements.

BM Jazz Studies (78 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

The bachelor of music degree in jazz studies prepares the student with a broadbased music preparation and specialized course work leading to graduate studies in jazz or a career in jazz-related performing, arranging, or studio teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.

2. Present two recitals: Music 249R should be the culmination to Music 260R, and Music 349R should be taken concurrently with the second semester of Music 360R. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete one of the following options:
   Instrumentalists complete the following:
   Music 250, 260R (6 hours).
   Vocalists complete the following:
   Music 161, 260R (6 hours).
5. Complete 4 hours of the following:
   Music 360R.
6. Complete at least 1 hour of large ensemble each semester for four semesters.
7. Complete 4 hours of the following:
   Music 333R, 334R; 347R (up to one semester).
8. Complete four semesters of the following:
   Music 331R, 335R.
9. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
10. Complete the following:
    Music 186, 284, 384, 391, 394, 468, 485.
11. Complete 5 hours of music electives. Music 203 and 410R (Finale and Music Business sections) are recommended. See faculty advisor.

Recommended Courses

The following are recommended jazz-related GE courses:
Music 204.
Phscs 167.

BM Media Music Studies (75 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

A major in media music studies prepares the student for music industry opportunities in creating and managing music for the media (radio, TV, records, film). The program combines rigorous grounding in traditional repertoires with preprofessional course work and project experience in current industry models and musical styles.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into the degree program.
2. Present a juried recital (Music 349R) during the junior year.

   Recital: Enroll in 349R (0.0 credit hours) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete one of the following options:
   Instrumentalists
   Music 250, 260R (6 hours).
   Vocalists
   Music 161, 260R (6 hours).
5. Complete at least 1 hour of large ensemble each semester for four semesters.
6. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
7. Complete the following specialized courses:
   Music 186, 286, 386R, 389.
8. Complete 4 hours of the following:
   Music 399R.
9. Complete 8 hours from the following:
   Music 188, 251, 284, 287, 351, 352A,B, 355R, 391, 489. TMA 102.

   Note: Music 251, 355R, 489, and TMA 102 are strongly recommended.
10. Complete 2 hours from the following preprofessional instruction:
    Music 360R—song writing
    Music 360R—synthesizer
11. Complete 6 hours from the following:
    Music 203, 204, 210R, 288, 481, 482, 483, 485.

*Hours include courses that may fulfill GE or university requirements.

BM Music Composition (78 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

The music composition major prepares the student for graduate study in composition and theory or may lead to a professional career in composing, arranging, or related fields.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Pass a screening process by submitting your portfolio of compositions from Music 288.
3. Present a juried composition recital (Music 449R) during the senior year.

   Recital: Enroll in 449R (1 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate composition instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
4. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
5. Complete one of the following options:
   a. Instrumentalists complete the following:
      Music 250, 260R (6 hours).
   b. Vocalists complete the following:
      Music 161, 260R (6 hours).
6. Complete at least 1 hour of large ensemble each semester for four semesters.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following lower-division composition courses:
   Music 188, 287, 288.

9. Complete 8 hours of the following upper-division composition seminar:
   Music 387R.
10. Complete the following:
    Music 481, 483, 581, 583.
11. After consulting with faculty advisor, complete 4 hours of music electives.

BM Music Education: K–12 Choral Emphasis

(83 hours, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

A degree in music education prepares the student for K–12 licensure as a public school music teacher with a choral emphasis. The degree program is a composite of music and education. Graduates may obtain a teaching position, pursue graduate work, or use the degree as professional preparation for other fields of endeavor.

Major Requirements

1. See the college advisement center and enroll in Music 176 winter semester or summer term. This course is prerequisite to official acceptance into music education.
2. Proficiency requirements: All Music 260R, 262, 263, and 363 credits **must be completed before student teaching** (ScEd 476R). Twenty minutes of solo performance time and ten minutes of chamber music performance time are required, which may be accomplished through master classes, recitals, juries, or in-class performances in ScEd 276R and 476R. Students opting for a juried recital must register for Music 349R.
3. Complete the following lower-divison music core courses:
   Music 161, 193, 194, 195, 196, 197, 198, 221, 235, 293, 294, 295, 296, 297, 298.
4. Complete 6 hours of the following:
   Music 260R.
5. Music education majors must enroll in at least 1 hour of large ensemble each semester for seven semesters within student's area of specialization. At least 1 hour must be the 311R evening section.
6. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
7. Complete the following:
   Music 162, 176, 262, 263, 276, 363, 374, 376A,B, 482.
8. Complete the following professional education courses:
   ScEd 276R, 326, 351, 375.
9. Complete 12 hours of student teaching:
   ScEd 476R.

BM Music Education: K–12 Instrumental Emphasis

(90 hours, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

A degree in music education prepares the student for K–12 licensure as a public school music teacher with an instrumental emphasis. The degree program is a composite of music and education. Graduates may obtain a teaching position, pursue graduate work, or use the degree as professional preparation for other fields of endeavor.

Major Requirements

1. See the college advisement center and enroll in Music 176 winter semester or summer term. This course is prerequisite to official acceptance into music education.
2. Proficiency requirements: All Music 260R and 360R requirements in a woodwind, brass, string, or percussion instrument must be completed before student teaching (ScEd 476R). Twenty minutes of solo performance time and ten minutes of chamber music performance time are required, which may be accomplished through master classes, recitals, juries, or in-class performances in Music 276R and 476R. Students opting for a juried recital must register for Music 349R.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following:
   Music 250, 260R (6 hours).
5. Complete 4 hours of the following:
   Music 360R.
6. Music education majors must enroll in at least 1 hour of large ensemble each semester for seven semesters. Those who play woodwind, brass, or percussion instruments must enroll in one semester of marching band, which may be counted toward the 7-hour large ensemble requirement if it is completed after the student has been officially accepted as a degree candidate in instrumental music education (after freshman year).
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 176, 276, 372A,B, 373A,B, 374, 375A,B, 377A,B.
9. Complete the following professional education courses:
   ScEd 276R, 326, 351, 375.
10. Complete 12 hours of student teaching:
    ScEd 476R.

BM Music Education: Elementary Music Specialist Emphasis (120.5–121.5 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

A five-year program, the degree offers a dual major in elementary music education and elementary education. It will also prepare the student for dual licensure as an elementary music specialist and as an elementary classroom teacher. Graduates may obtain a teaching position in either area or a combination of both, pursue graduate work, or use the degree as preparation for other fields of endeavor.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 235, 293, 294, 295, 296, 297, 298.

   Note: Music 235 must be a choral section.
3. Complete one of the following options:
   Instrumentalists
   Music 111R.
   Vocalists
   Music 161, 162.

4. Complete 6 hours of the following in your major instrument or voice:
   Music 260R.
5. Complete at least 1 hour of large ensemble each semester for four semesters. Piano and vocal emphasis majors should participate in choral ensembles. At least one choral ensemble experience is recommended for instrumental emphasis majors.
6. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
7. Complete the following:
   Music 271, 272, 371, 471.
8. See the Education Advisement and Certification Office for the application procedure for official acceptance into elementary education and complete the professional education component.

*Hours include courses that may fulfill GE or university requirements.

BM Performance: Brass Emphasis (77 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 349R) during the junior year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following:
   Music 250, 260R (6 hours).
5. Complete 12 hours of the following:
   Music 460R.
6. Complete at least 1 hour of large ensemble within student's area of specialization each semester for eight semesters.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 368, 405.
9. Complete 4 hours from the following:
   Music 331R, 341R.
10. Complete 5 hours of music electives (Music 407 is recommended). See faculty advisor.

BM Performance: Combined Piano and Organ Emphasis (77 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 249R) during the sophomore year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 249R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following divided between piano and organ:
   Music 250, 260R (6 hours).
5. Complete 8 hours of the following divided between piano and organ:
   Music 360R.
6. Complete at least 1 hour of large ensemble or Music 344R each semester for six semesters. Take either four semesters of large ensemble and two semesters of Music 344R or two semesters of large ensemble and four semesters of Music 344R. Two semesters of 344R must be taken in consecutive fall and winter semesters.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 166, 264, 265, 364, 365, 366, 466R.
9. Complete 2 hours of the following:
   Music 470R.
10. Complete the following:
    Music 469.
11. Complete three courses from the following:
    Music 403A,B, 404A,B.

BM Performance: Organ Emphasis (78 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 249R) during the sophomore year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 249R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following:
   Music 250, 260R (6 hours).
5. Complete 4 hours of the following:
   Music 360R.
6. Complete 6 hours of the following:
   Music 460R.
7. Complete at least 1 hour of large ensemble or Music 344R each semester for four semesters. Music 344R may be taken for two of the four semesters but must be in consecutive fall and winter semesters.
8. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
9. Complete the following:
   Music 166, 264, 265, 364, 366, 404A,B, 466R (twice).

   Note: Two semesters of Music 466R must be taken in consecutive winter and fall semesters.
10. Complete 2 hours of the following:
    Music 470R.
11. Complete the following:
    Music 469.
12. Complete one course from the following:
    Music 481, 483.

BM Performance: Percussion Emphasis (77 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 349R) during the junior year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following:
   Music 250, 260R (6 hours).
5. Complete 12 hours of the following:
   Music 460R.
6. Complete at least 1 hour of large ensemble within student's area of specialization each semester for eight semesters (not spring or summer).
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 374, 405.
9. Complete 5 hours from the following:
   Music 330R, 331R, 345R.
10. Complete 5 hours of music electives (Music 407 is recommended). See faculty advisor.

BM Performance: Piano Emphasis (78 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The keyboard performance degree prepares students for professional work as performers and studio teachers. The degree includes a strong pedagogy emphasis, including supervised teaching. Many performance majors continue their studies on the graduate level to further prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 249R) during the sophomore year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 249R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following:
   Music 250, 260R (6 hours).
5. Complete 4 hours of the following:
   Music 360R.
6. Complete 6 hours of the following:
   Music 460R.
7. Complete at least 1 hour of large ensemble or Music 344R each semester for six semesters. Take either four semesters of large ensemble and two semesters of Music 344R or two semesters of large ensemble and four semesters of Music 344R. Two semesters of 344R must be taken in consecutive fall and winter semesters.
8. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.

9. Complete the following:
   Music 264, 265, 364, 365, 403A,B.
10. Complete 2 hours of the following:
    Music 470R.
11. Complete the following:
    Music 469.
12. Complete 4 hours of the following:
    Music 115, 116R, 260R (organ).
13. Complete one course from the following:
    Music 481, 483.

BM Performance: String Emphasis (77 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 349R) during the junior year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following:
   Music 250, 260R (6 hours).
5. Complete 12 hours of the following:
   Music 460R.
6. Complete at least 1 hour of the following each semester for eight semesters (not spring or summer):
   Music 337R, 338R.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 369 (A or B depending on instrument), 406, 469.
9. Complete one course from the following:
   Music 405, 407.
10. Complete 2 hours of the following:
    Music 470R.
11. Complete 4 hours from the following:
    Music 331R, 343R, 346R.

Recommended Electives

Music 473, 562R.

BM Performance: Vocal Emphasis (79 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The vocal performance degree program prepares students for professional work as performers and studio teachers. The degree includes a strong pedagogy emphasis, including supervised teaching. Many students in this program continue their studies on the graduate level to further prepare for a performing career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Perform a junior recital (Music 349R) and a juried senior recital (Music 449R).

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in Music 360R is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following:
   Music 161, 260R (6 hours).
5. Complete 8 hours of the following:
   Music 360R.
6. Complete at least 1 hour of large ensemble or a major opera production within student's area of specialization each semester for eight semesters.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 162, 262, 263, 363, 402A, 472.
9. Complete 8 hours from the following:
   Fren 101, 102.
   Germ 101, 102.
   Ital 101, 102.

Recommended Electives

Dance 164.
Music 259, 261.
Phscs 167.

Students intending to enter graduate school in voice should complete:
Fren 101
Germ 101.
Ital 101.

BM Performance: Woodwind Emphasis (77 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 349R) during the junior year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following:
   Music 250, 260R (6 hours).
5. Complete 12 hours of the following:
   Music 460R.
6. Complete at least 1 hour of large ensemble within student's area of specialization each semester for eight semesters.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 367, 405.
9. Complete 4 hours from the following:
   Music 331R (saxophone only), 348R.
10. Complete 5 hours of music electives (Music 407 is recommended). See faculty advisor.

BM Sound Recording Technology (75 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

Students majoring in sound recording technology prepare for engineering opportunities in the recording industry and related fields such as broadcasting and video sweetening. This degree gives students theoretical and practical experience in the recording of music in an acoustical environment and also includes course work in the digital recording and digital editing procedures that characterize the recording field today. The program combines rigorous grounding in traditional repertoires with preprofessional course work and project experience in recording.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into the degree program.
2. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
3. Complete one of the following options:
   Instrumentalists
   Music 250, 260R (6 hours).
   Vocalists
   Music 161, 260R (6 hours).
4. Complete at least 1 hour of large ensemble each semester for four semesters.
5. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
6. Complete the following specialized courses:
   Music 251, 256, 257, 286, 351, 352A,B.
   Phscs 167.
7. Complete three sections of the following:
   Music 355R (Analog Projects, Digital Projects 1, Digital Projects 2).
8. Complete 4 hours of the following:
   Music 399R.
9. Complete 6 hours from the following:
   Music 186, 203, 204, 360R (synthesizer), 386R, 389.
   TMA 102, 568.

*Hours include courses that may fulfill GE or university requirements.

Minor Music (18 hours)

Minor Requirements

1. Complete the following:
   Music 101, 135, 190.
2. Complete 2 hours of the following:
   Music 160R.
3. Complete 4 hours of performance ensemble.
4. Complete 5 hours of music electives.

Note: Transfer students should see the college advisement center for transferring classes for a minor.

Music (Music)

Undergraduate Courses

A course without the R suffix may not be repeated more than one time to improve a grade. (Repeating a course with the R suffix does not change the original grade.)

101. Introduction to Music. (3:3:0) F, W, Sp, Su Honors also. Prerequisite: nonmusic major status.
Designed to aid nonmusic majors in developing skills needed for listening to music creatively. Emphasis on masterworks of Western music from major style periods.

105. Introduction to Music Theory. (4:3:1) F Prerequisite: ability to read music fluently.
Teaches accomplished musicians not majoring in music the harmonic syntax and formal organization of western music. Includes ear training. Prerequisite to Music 205.

111R. Basic Vocal Skills. (2:2:0 ea.) F, W, Sp
Class instruction in voice for nonmusic majors.

113. Basic Piano Skills. (2:2:0) F, W, Sp
Class instruction in piano for nonmusic majors.

114R. Piano Techniques and Literature. (2:2:0 ea.) F, W, Sp Prerequisite: Music 113 or instructor's consent.
Continuation of Music 113.

115. Basic Organ Skills. (2:2:0) F, W, Sp
Class instruction in organ for nonmusic majors.

116R. Organ Techniques and Literature. (2:2:0 ea.) F, W
Prerequisite: Music 115 or instructor's consent.
Continuation of Music 115.

117. Basic Guitar Skills. (2:2:0) F, W, Sp, Su
Class instruction in guitar for nonmusic majors.

118R. Guitar Techniques and Literature. (2:2:0 ea.) F, W
Prerequisite: Music 117 or instructor's consent.
Continuation of Music 117.

135. Basic Conducting. (2:2:0) F, W
Fundamental concepts and skills for nonmusic majors.

160R. Performance Study. (0.5–1:0.5:0 ea.) F, W, Sp Prerequisite: nonmusic major status. Audition may be required.
Private or semiprivate instruction. One to two hours of daily practice. Fee.

161. Voice Technique. (2:2:0) F Prerequisite: acceptance by audition to the School of Music.
Class instruction in voice technique.

162. Diction 1. (1:1:0) F Prerequisite: concurrent enrollment in 161. Recommended: concurrent enrollment in Ital 101.
English, Italian, and Latin diction for singers.

166. Organ Registration. (2:2:0) F Prerequisite: concurrent private or group instruction in organ or instructor's consent.
Organ stops and their application to various performance styles.

176. Careers in Music Education. (1:1:1) W, Su
Examining preschool through college teaching career options in music; seeking a good fit between personal aspirations, attributes, skills, and job requirements. Open to both music majors and nonmajors.

186. Songwriting 1. (2:2:0) F, W Prerequisite: basic music reading and keyboard skills.
Songwriting for present-day music publishing industry; basic songwriting theory; form, content, and style.

188. Composition 1. (2:2:0) F Prerequisite: Music 196 or instructor's consent.
Introduction to principles of recent art music; composition and performance of student works for one to five instruments.

189. Introduction to Music Instrument Digital Interface (MIDI). (2:2:0) Prerequisite: acceptance as a music major.
Overview of computer programs in all aspects of music composition, production; familiarity with worldwide music sites on the network; demonstrations of samplers and electronic sound sources.

190. Music Fundamentals. (2:2:0) F, W, Sp or Su Prerequisite: nonmusic major status. Required for music minor.
Organizational systems of music, their notation and aural patterns.

193. Dictation 1. (1:0:2) F, Sp Prerequisite: acceptance as a music major; concurrent enrollment in Music 197 and *same* section of 195.
Development of aural skills through melodic, rhythmic, and harmonic dictation.

194. Dictation 2. (1:0:2) W, Su Prerequisite: C– or higher in Music 193, 195, 197; concurrent enrollment in Music 198 and *same* section of 196.
Continuation of Music 193.

195. Music Theory 1. (3:3:0) F, Sp Prerequisite: acceptance as a music major; concurrent enrollment in Music 197 and *same* section of 193.
Writing and analysis in diatonic harmony.

196. Music Theory 2. (3:3:0) W, Su Prerequisite: C– or higher in Music 193, 195, 197; concurrent enrollment in 198 and *same* section of 194.
Writing and analysis in diatonic and chromatic harmony.

197. Sight Singing 1. (0.5:0:1) F, Sp Prerequisite: acceptance as a music major; concurrent enrollment in Music 193, 195.
Rhythm and pitch-reading skills using two systems of counting and melodic solfeggio singing with hand signs.

198. Sight Singing 2. (0.5:0:1) W, Su Prerequisite: C– or higher in Music 193, 195, 197; concurrent enrollment in Music 194, 196.
Continuation of Music 197.

200. Elements of Music. (1:1:0) F, W, Sp Prerequisite: nonmusic major status and concurrent ensemble enrollment.
Exploration of basic musical processes, structures, styles, and common principles of music literature through lectures, demonstrations, and analytical experiences.

201. Civilization: Music 1. (3:3:0) F, Sp or Su on dem. Honors also. Prerequisite: ability to read musical notation.
History of Civilization from Greek antiquity to Renaissance, primarily from perspective of musical literature and the arts; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

202. Civilization: Music 2. (3:3:0) W, Sp or Su on dem. Honors also. Prerequisite: ability to read musical notation.
History of Civilization from baroque to present, primarily from perspective of musical literature and the arts; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

203. World Music Cultures. (3:3:0) F, W
Traditional music of selected cultures of Asia, Oceania, Africa, Europe, and the Americas, including both folk and art music traditions.

204. History of Jazz. (3:3:0) F, W, Sp, Su
Fostering an understanding and appreciation of jazz, America's unique contribution to the world's music.

205. Introduction to Music Aesthetics. (3:3:0) For accomplished musicians not majoring in music who want a substantial course in the language of music. W Prerequisite: Music 105, 3 hours of 160R (1 hour may be taken concurrently with 205).
Covers advanced forms such as fugue and sonata in historical context of Western musical style. Includes ear training.

210R. Topics in Music. (1–3:Arr.:Arr. ea.) On dem.
Topics vary.

221. Functional Piano Skills 1. (2:2:0) F, Sp Prerequisite: piano skills determined by entrance diagnostic exam; music major status.
Provides music majors with basic keyboarding ability in such areas as sight reading, technique, harmonization, and score reading.

222. Functional Piano Skills 2. (2:2:0) W, Su Prerequisite: Music 221; music major status.
Continuation of Music 221.

235. Conducting Techniques. (2:2:0) F, W, Sp Prerequisite: music major status, C– or higher in Music 194, 196, 198.
Physical techniques and musical understanding required to conduct a performance ensemble.

249R. Sophomore Recital. (0:Arr.:Arr. ea.) F, W, Sp Prerequisite: concurrent enrollment in Music 260R and instructor's consent.
Prerecital hearing required at least three weeks before juried recitals. Fee.

250. First-Semester Performance Instruction. (2:1:1) F Prerequisite: acceptance by audition.
Private instruction and studio class for first-semester keyboard and instrumental students (including transfer students). From one to four hours of daily practice. Fee.

251. Audio: Basic Principles. (2:2:2) F, W
Basic recording studio procedures and principles. Intended as overview of the field, course is not for those seeking emphasis in sound recording technology.

256. Recording Studio 1. (2:2:2) F Prerequisite: Math 110 or equivalent, Phscs 167, and music major status or instructor's consent.
Basic recording theory, operational techniques, and procedures.

257. Recording Studio 2. (2:2:2) W Prerequisite: Music 256.
Continuation of Music 256.

259. Psychology of Performance. (2:2:0) F, W
Psychological skills for performers. Topics include audition preparation, conquering stage fright, preventing overuse injury, attention control, creativity. Skills applicable to any performance situation.

260R. Performance Study. (1–2:1:1 ea.) F, W, Sp Prerequisite: Music 161 or 250; jury approval; completion of first-semester theory, a score of 4 or higher on the AP Theory exam, or a passing score on the School of Music aural skills exam.
Private instruction and studio class. From one to four hours of daily practice. Fee.

261. Contemporary Vocal Techniques. (2:2:1) W Prerequisite: Music 161 or instructor's consent.
Contemporary vocal styles and techniques, including pop/belt, stage, and studio singing.

262. Diction 2: German Diction for Singers. (1:2:0) F, W 1st block Prerequisite: Music 162 and concurrent enrollment in Music 260R or 360R. Recommended: concurrent enrollment in Germ 101.
German diction for singers.

263. Diction 3: French Diction for Singers. (1:2:0) F, W 2nd block Prerequisite: Music 162 and concurrent enrollment in Music 260R or 360R. Recommended: concurrent enrollment in Fren 101.
French diction for singers.

264. Keyboard Foundations 1. (2:2:0) F Prerequisite: Music 194, 196, 198, 260R.
Sight-reading, harmonization, improvisation, and technique at the keyboard.

265. Keyboard Foundations 2. (2:2:0) W, Sp Prerequisite: Music 264.
Continuation of Music 264.

271. Musicality in the Elementary School. (3:2:1) F Prerequisite: Music 194, 196, 198; or concurrent enrollment.
Survey of authentic folk song and art music tonal systems and structures; their use in developing musical intuition through singing, movement, listening, and playing instruments.

272. Developing Children's Musicality, Grades K–2. (3:1:2) W Prerequisite: Music 271.
Literature-based curriculum design and planning, grades K–2. Issues of pure intonation and vocal/aural development. Microteaching in a demonstration school.

276. General Music Methods. (3:3:0) W Prerequisite: Music 194, 196, 198 or concurrent enrollment; ScEd 276R.
Methods and materials for teaching general music, K–12. Cognitive development and learning styles as a basis for instructional strategies. Includes Dalcroze, Orff, and Kodaly.

284. Jazz Improvisation 1. (2:2:1) F, W Prerequisite: Music 194, 196, 198, or instructor's consent.
Beginning improvisation: theory and technique.

286. Introduction to the Music Business. (2:2:0) W Prerequisite: music major status.
The music business and its models. Guided research topics for all musicians.

287. Electronic Music Composition. (2:2:1) W Prerequisite: Music 195 or instructor's consent.
Introduction to composition with digital audio and MIDI synthesis and sequencing.

288. Composition 2. (2:1:2) W Prerequisite: Music 188.
Invention and exploration of sound, control of multivoiced textures and larger forms, and recent twentieth-century art music.

290. Music Theory for MDT Majors. (4:3:2) W Prerequisite: Music 113 and music dance theatre (MDT) major status.
Music theory, sight singing, aural dictation, and keyboard harmony.

293. Dictation 3. (1:0:2) F, Sp Prerequisite: acceptance into a degree-granting music major; concurrent enrollment in Music 297 and *same* section of 295.
Continuation of Music 194.

294. Dictation 4. (1:0:2) W, Su Prerequisite: C– or higher in Music 293, 295, 297; concurrent enrollment in Music 298 and *same* section of Music 296.
Continuation of Music 293.

295. Music Theory 3. (3:3:0) F, Sp Prerequisite: acceptance into a degree-granting music major; concurrent enrollment in Music 297 and *same* section of 293.
Extended chromatic techniques and introduction to twentieth-century concepts.

296. Music Theory 4. (3:3:0) W, Su Prerequisite: C– or higher in Music 293, 295, 297; concurrent enrollment in Music 298 and *same* section of 294.
Set theory, serialism, and late twentieth-century concepts.

297. Sight Singing 3. (0.5:0:1) F, Sp Prerequisite: acceptance into a degree-granting music major; concurrent enrollment in Music 293, 295.
Continuation of Music 198.

298. Sight Singing 4. (0.5:0:1) W, Su Prerequisite: C– or higher in Music 293, 295, 297; concurrent enrollment in Music 294, 296.
Continuation of Music 297.

300. History of Music Dance Theatre. (1:3:0) F even yr. Prerequisite: Music 290, Dance 243R, 244R, TMA 114; concurrent enrollment in Dance 300, TMA 300. Recommended: concurrent enrollment in Music 328, Dance 328, TMA 328.
Music in the Western tradition from classical antiquity to present, emphasizing union of music, dance, and theatre.

301. Survey of Music Literature 1. (2:2:0) F, Sp Prerequisite: Music 194, 196, 198; 201, 202, or equivalent.
Survey of musical genres, forms, styles, and performance practices from antiquity through the sixteenth century.

302. Survey of Music Literature 2. (2:2:0) W, Su Prerequisite: C– or higher in Music 301.
Survey of musical genres, forms, styles, and performance practices from the baroque through the early classic.

303. Survey of Music Literature 3. (2:2:0) F, Sp Prerequisite: Music 294, 296, 298; C– or higher in Music 302; Engl 311 or concurrent enrollment.
Survey of music genres, forms, styles, and performance practices from the high classic through the romantic.

304. Survey of Music Literature 4. (2:2:0) W, Su Prerequisite: C– or higher in Music 303.
Survey of musical genres, forms, styles, and performance practices of the twentieth century.

311R. University Chorale. (1:0:3 ea.) F, W, Sp No audition required.

312R. Men's Chorus. (1:0:5 ea.) F, W Prerequisite: audition and director's consent.

313R. Women's Chorus. (1:0:5 ea.) F, W Prerequisite: audition and director's consent.

314R. Concert Choir. (1:0:5 ea.) F, W Prerequisite: audition and director's consent.

315R. University Singers. (1:0:5 ea.) F, W Prerequisite: audition and director's consent.

316R. Opera Workshop. (1:6:0 ea.) F, W, Sp Prerequisite: audition; instructor's consent.
Training and experience in operatic choral music and stage movement.

317R. Opera Ensemble. (1–3:6:0 ea.) F, W, Sp Prerequisite: audition; instructor's consent.
Training and experience in operatic excerpts, chamber opera, and full productions for operatic soloists.

318R. Music Theatre Ensemble. (1:0:5 ea.) F, W Prerequisite: audition and director's consent.
Auditioned chorus or orchestra for opera or music dance theatre productions.

319R. Music Theatre Performance. (1–3:0:0 ea.) F, W, Sp Prerequisite: audition and director's consent.
Participation as soloists, coaches, or directors in music dance theatre or opera performances.

321R. University String Orchestra. (1:2:0) F, W
No audition required. Does not satisfy large ensemble requirement for majors.

322R. University Band. (1:2:0) W
No audition required. Does not satisfy large ensemble requirement for majors.

323R. Marching Band. (1:0:6 ea.) F Prerequisite: audition or director's consent.

324R. Cougar Band. (1:0:6 ea.) W Prerequisite: audition or director's consent.

325R. Symphonic Band. (1:0:4 ea.) F, W, Sp Prerequisite: audition.

326R. Wind Symphony. (1:0:4 ea.) F, W Prerequisite: audition.

328. Junior Music Dance Theatre Seminar. (1:2:0) F Prerequisite: music dance theatre BFA major status; TMA 114, 229; concurrent enrollment in Dance 328, TMA 328. Recommended: concurrent enrollment in Music 300, Dance 300, TMA 300.
Intensive integration of music, dance, and theatre for the performer.

329R. Folk Ensemble. (1:0:4 ea.) F, W Prerequisite: director's consent.
Traditional bluegrass ensemble. Performs with BYU International Folk Dancers.

330R. Steel Band. (1:0:2 ea.) F, W Prerequisite: director's consent.

331R. Jazz Combos. (1:1:2 ea.) F, W Prerequisite: audition.

332R. Show Band. (1:0:6 ea.) F, W Prerequisite: audition.
Contemporary and traditional show music (Young Ambassadors) and ethnic music (Lamanite Generation).

333R. Jazz Ensemble. (1:0:4 ea.) F, W, Sp Prerequisite: audition.
Includes Jazz Ensemble (big band), Jazz Lab Band (entry-level big band), and Vocal Jazz Ensembles.

334R. Synthesis. (1:0:4 ea.) F, W Prerequisite: audition.

335R. Jazz Legacy Band. (1:2:0 ea.) F, W Prerequisite: audition.
Traditional ensemble specializing in early jazz. Band occasionally tours off campus.

337R. Symphony Orchestra. (1:0:4 ea.) F, W Prerequisite: audition.

338R. Philharmonic Orchestra. (1:0:4 ea.) F, W Prerequisite: audition.

339R. Chamber Orchestra. (1:0:2 ea.) F, W Prerequisite: audition.

340R. Harp Ensemble. (0.5:1:0 ea.) F, W Prerequisite: director's consent.

341R. Brass Chamber Music. (1:1:2 ea.) F, W Prerequisite: director's consent.

342R. Early Music Ensemble. (1:1:3 ea.) F, W Prerequisite: director's consent.

343R. Guitar Ensemble. (1:1:2 ea.) F, W Prerequisite: director's consent.

344R. Keyboard in Ensemble. (1:0:3 ea.) F, W, Sp Prerequisite: Music 260R or instructor's consent.
Accompanying and ensemble performance.

345R. Percussion Ensemble. (1:0:2 ea.) F, W Prerequisite: director's consent.

346R. String Chamber Music. (1:1:2 ea.) F, W, Sp Prerequisite: director's consent.

347R. Vocal Point. (1:5:0 ea.) F, W Prerequisite: director's consent.

348R. Woodwind Chamber Music. (1:1:2 ea.) F, W Prerequisite: director's consent.

349R. Junior Recital. (0:Arr.:Arr. ea.) F, W, Sp Prerequisite: concurrent enrollment in Music 360R or 460R and instructor's consent. Prerecital hearing required at least three weeks before juried recitals. Fee.

351. Audio Applications. (2:2:2) F Prerequisite: Music 257, Math 110; Phscs 167, or instructor's consent.
Audio applications emphasizing Pro Tools digital editing.

352A,B. Audio Electronics 1, 2. (1:1:0 ea.) W Prerequisite: Music 351.
Introduction to electronics as encountered in audio applications. Block 1: Basic DC and AC circuits. Block 2: Introduction to systems and acoustic design.

355R. Recording Workshop. (1:1:5 ea.) F, W Prerequisite: Music 251 or 257.
Studio projects in multitrack recording for records, broadcast, film, and television.

359R. Performance Study. (1–2:Arr.:Arr. ea.) For those who have completed private instruction requirements for their degree. F, W, Sp Prerequisite: music major status; completion of degree requirements in 260R, 360R, and 460R; instructor's consent.
Private instruction and studio class requiring from one to four hours of daily practice. Fee.

360R. Performance Study. (1–2:1:1 ea.) F, W, Sp Prerequisite: music major status; jury approval.
Private instruction and studio class. From one to four hours of daily practice. Fee.

363. Vocal Pedagogy. (3:3:0) W Prerequisite: junior standing as vocal performance or choral music education major or instructor's consent.
Introduction to physiology, acoustics, and pedagogy of singing.

364. Keyboard Pedagogy. (2:2:1) F Prerequisite: keyboard performance major status or instructor's consent.
Basic pedagogical principles as applied to keyboard instruments.

365. Piano Pedagogy. (2:2:1) W Prerequisite: Music 364.
Preparation for supervised private or group teaching.

366. Organ Pedagogy. (2:2:1) W even yr. Prerequisite: Music 364.
Preparation for supervised private or group teaching.

367. Woodwind Pedagogy. (2:2:1) F odd yr. Prerequisite: woodwind performance major status or instructor's consent.

368. Brass Pedagogy. (2:2:1) F even yr. Prerequisite: brass performance major status or instructor's consent.

369A. String Pedagogy. (2:2:1) F even yr. Prerequisite: instrumental performance major status on violin or viola, or instructor's consent.

369B. String Pedagogy. (2:2:1) F even yr. Prerequisite: instrumental performance major status on cello or double bass, or instructor's consent.

370. Guitar Pedagogy. (2:2:1) F odd yr. Prerequisite: instrumental performance major status or instructor's consent.

371. Developing Children's Musicality, Grades 3–5. (3:1:2) F Prerequisite: Music 271, 272.
Continuation of Music 272 for grades 3–5, emphasizing the relationship of classroom literature to choral experience and instrumental musicianship. Microteaching in a demonstration school.

372A. Woodwind Workshop. (1:0:3) F Prerequisite: Music 194, 196, 198.
Learning to play and to teach woodwind instruments; survey of instructional materials; emphasis on clarinet and saxophone.

372B. Woodwind Workshop. (1:0:3) W Prerequisite: Music 194, 196, 198.
Continuation of Music 372A. Emphasis on flute, oboe, and bassoon.

373A. Brass Workshop. (1:0:3) F Prerequisite: Music 194, 196, 198.
Learning to play and to teach brass instruments; survey of instructional materials; emphasis on trumpet and French horn.

373B. Brass Workshop. (1:0:3) W Prerequisite: Music 194, 196, 198.
Continuation of Music 373A. Emphasis on trombone, baritone, and tuba.

374. Percussion Workshop. (1:0:3) F (instrumental education), W (choral education) Prerequisite: Music 194, 196, 198.
Learning to play and teach percussion instruments; survey of instructional materials.

375A. String Workshop. (1:0:3) F Prerequisite: Music 194, 196, 198.
Learning to play and teach string instruments; survey of instructional materials, emphasis on violin and viola.

375B. String Workshop. (1:0:3) W Prerequisite: Music 194, 196, 198.
Continuation of Music 375A. Emphasis on cello and bass.

376A. Choral Practicum. (3:3:0) F Prerequisite: Music 221, 235, 276, 294, 296, 298.
Applied conducting technique, score analysis and preparation, evaluating solo performance, and application of learning theory.

376B. Choral Practicum. (3:3:0) W Prerequisite: Music 221, 235, 276, 294, 296, 298.
Curriculum design, score analysis and preparation, choral arranging, rehearsal techniques, survey of literature, and vocal pedagogy, including treble voice and changing voice; computers and computer-assisted instruction.

377A. Instrumental Practicum. (3:3:0) F Prerequisite: Music 221, 235, 276, 294, 296, 298.
Applied conducting technique, score analysis and preparation, evaluating solo performance, and applying learning theory.

377B. Instrumental Practicum. (3:3:0) W Prerequisite: Music 221, 235, 276, 294, 296, 298.
Curriculum design, evaluating ensemble performance, advanced rehearsal techniques, administering secondary instrumental music programs; computers and computer-assisted instruction.

378. Music for the Elementary Classroom Teacher. (2:2:0) F, W, Sp, Su
Establishing a classroom environment for musical development; emphasis on appropriate songs, activities, resources, and teaching strategies.

384. Jazz Improvisation 2. (2:2:1) W Prerequisite: Music 284 or director's consent.
Intermediate improvisation: theory and technique.

386R. Songwriting 2. (2:2:0 ea.) W Prerequisite: Music 186.
Projects in advanced songwriting.

387R. Composition 3. (2:1:2 ea.) F, W Prerequisite: Music 222, 288, 294, 296, 298, and junior-level screening.
Composition lessons and seminars in principles of late twentieth-century music.

389. Projects in Music for Media. (2:2:0) F odd yr. Prerequisite: music major status, Music 186; instructor's consent.
Introductory projects in scoring for broadcast media, publication, and studio recording.

391. Jazz Keyboard. (2:2:0) Sp Prerequisite: Music 222, 294, 296, 298, or instructor's consent.
Lead sheets, chord voicings, and other aspects of jazz performance practice.

394. Jazz Styles and Analysis. (3:3:0) F even yr. Prerequisite: music major status; instructor's consent.
In-depth experience in recognizing and differentiating jazz styles, including analyzing and transcribing solo and ensemble jazz materials.

395. Form and Analysis. (3:3:0) F, W, Sp Prerequisite: C– or higher in Music 293, 295, 297.
Analytical study of forms from the common-practice period, including baroque contrapuntal structures and instrumental forms, classical sonata cycle, and romantic part forms.

399R. Academic Internship. (1–6:Arr.:Arr. ea.) F, W, Sp Su Prerequisite: instructor's consent.
Internship or externship in creative, performing, producing, or teaching applications of major course work.

402A. Vocal Literature. (3:3:0) W Prerequisite: acceptance into 360R or instructor's consent.
Survey of literature with emphasis on art song. Research in area of concentration.

402B. Vocal Literature. (2:2:0) On dem. Prerequisite: acceptance into 360R or instructor's consent.
Continuation of Music 402A with emphasis on opera and oratorio.

403A. Piano Literature. (2:2:0) F Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature. Research in area of concentration.

403B. Piano Literature. (2:2:0) W Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Continuation of Music 403A.

404A. Organ Literature. (2:2:0) F odd yr. Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature. Research in area of concentration.

404B. Organ Literature. (2:2:0) W even yr. Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Continuation of Music 404A.

405. Chamber Music Literature. (2:2:0) W Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature, including research in field of concentration.

406. String Literature. (2:2:0) F Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature, including research in field of concentration.

407. Symphonic Literature. (2:2:0) On dem. Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature, including research in field of concentration.

410R. Advanced Topics in Music. (1–3:Arr.:Arr. ea.) On dem. Prerequisite: C– or higher in Music 304; 222, 294, 296, 298, or instructor's consent.
Topics vary.

426. Music Dance Theatre: Senior Performance Project. (1:0:3) W Prerequisite: TMA 361; concurrent enrollment in Dance 426, TMA 426.
Participation in an MDT performance group culminating in a showcase for agents and directors in New York City during April.

441R. New Music Ensemble. (1:0:1 ea.) F, W Prerequisite: instructor's consent.

449R. Senior Recital. (1:Arr.:Arr. ea.) F, W, Sp Prerequisite: concurrent enrollment in Music 360R, 387R, or 460R, and instructor's consent. Prerecital hearing required at least three weeks before juried recitals. Fee.

460R. Performance Study. (1.5–3:1:1 ea.) F, W, Sp Prerequisite: major in performance; jury approval.
Advanced private instruction and studio class. From three to five hours of daily practice. Fee.

466R. Organ Practicum. (2:2:1 ea.) W odd yr., F even yr. Prerequisite: Music 166 or organ performance major status. Must be taken in consecutive winter and fall semesters.
Developing various practical skills required of the organist.

468. Jazz Pedagogy. (1:2:0) On dem.
Organizing and teaching jazz in the secondary school. Designed for the music educator.

469. Theory and Methods of Studio Teaching. (1:1:0) W Prerequisite: completion of required pedagogy class or instructor's consent.
Applying learning theory and secondary education methods to studio teaching.

470R. Studio Teaching Practicum. (1:1:1 ea.) F, W Prerequisite: completion of required pedagogy class or instructor's consent.
Applying pedagogical principles to teaching.

471. Practicum in Children's Musicality. (3:1:2) W Prerequisite: Music 271, 272, 371.
Pedagogy for grades 6 and beyond. Children's choir development, including arranging and adapting vocal and instrumental music. Extended pre–student teaching in a demonstration school.

472. Supervised Teaching in Voice. (2:1:3) F, W Prerequisite: Music 363.
Lecture, discussion, and practicum in the methodology of studio voice instruction.

473. Suzuki Methods. (1:1:0) F Prerequisite: completion of required pedagogy class or instructor's consent.
Applying the principles of Shinichi Suzuki to teaching. Emphasis on violin.

481. Orchestration. (3:3:0) F Prerequisite: C– or higher in Music 294, 296, 298.
Scoring for standard orchestral instruments.

482. Choral Arranging. (2:2:0) F Prerequisite: C– or higher in Music 294, 296, 298.
Study of published choral arrangements, as well as techniques for adapting and arranging for choirs.

483. Counterpoint. (3:3:0) F Prerequisite: C– or higher in Music 294, 296, 298.
Eighteenth-century contrapuntal styles and techniques, emphasizing those of J. S. Bach.

485. Jazz Arranging and Composition. (3:3:0) W Prerequisite: Music 295.
Developing concepts and skills related to the orchestration, arranging, and composition of jazz and related contemporary styles of music.

489. Film Scoring. (2:2:0) F even yr. Prerequisite: Music 389; instructor's consent.
Introduction to techniques and technology of film scoring.

494R. Independent Readings. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: advising professor's consent as certified by completing a contract obtained from undergraduate studies secretary in E-579 HFAC.

498. Senior Thesis. (3:Arr.:Arr.) F, W, Sp, Su Prerequisite: senior status and faculty advisor's endorsement.

499R. Honors Thesis. (1–6:0:0 ea.) F, W, Sp, Su Prerequisite: senior status.

500-Level Graduate Courses (available to advanced undergraduates)

500. Musical Research Techniques. (2:2:0) F, W Prerequisite: graduate status.

501. Music Education Research Techniques. (2:2:0) Su Prerequisite: graduate status.

503. Aesthetics. (3:3:0) On dem. Prerequisite: Music 304 or equivalent.
Fundamental questions of aesthetic theory from classical antiquity to the present, emphasizing musical aesthetics.

505R. Applied Literature. (2:2:1 ea.) On dem. Prerequisite: minimum of one enrollment in Music 402–407.
Continuation of Music 402–407.

506. Choral Literature 1. (2:2:0) F odd yr., W even yr. Prerequisite: instructor's consent.
Concentrated analytical study and application of choral literature through Beethoven.

507. Choral Literature 2. (2:2:0) W even yr. Prerequisite: instructor's consent.
Concentrated analytical study and application of choral literature from post-Beethoven to the present.

508. Orchestra Literature 1. (2:2:0) On dem. Prerequisite: instructor's consent.
Concentrated analytical study and application of orchestral literature of the baroque and classical eras.

509. Orchestra Literature 2. (2:2:0) On dem. Prerequisite: instructor's consent.
Concentrated analytical study and application of orchestral literature of the romantic era and the 20th century.

510. Band Literature. (2:2:0) W Prerequisite: instructor's consent.
Concentrated study of band literature through analysis and conducting.

532R. Score Preparation and Conducting: Instrumental. (2:2:0 ea.) F Prerequisite: instructor's consent.

533R. Choral Conducting and Development. (2:2:0 ea.) F even yr.
Principles and practices of score preparation, conducting, and choral development as elements of choral artistry.

534R. Score Preparation and Direction: Jazz. (2:2:0 ea.) Su odd yr.

560R. Performance Instruction. (1–2:1:0 ea.) F, W, Sp, Su Prerequisite: graduate music student status.
Performance instruction for students not specializing in performance, and for performance students wishing to study secondary instruments. Fee.

562R. Orchestral Repertoire. (1:1:0 ea.) F Prerequisite: concurrent enrollment in Music 460R or 660R or instructor's consent.
Performance instruction in standard orchestral repertoire.

570. Music for Elementary School Teachers. (2:2:0) On dem. Prerequisite: Music 371, 471, or elementary music teaching experience.
Experiences in teaching various music activities in the elementary school.

571. Elementary Education Music Pedagogy. (2:2:0) On dem. Prerequisite: Music 371 and equivalent of elementary education teaching minor in music.
Orff, Dalcroze, and Kodaly materials and techniques.

575R. Summer Music Workshops and Clinics. (1–4:Arr.:Arr. ea.)

576. Fundamentals and Techniques of the Marching Band. (2:2:2) For music education majors only. On dem. Prerequisite: Music 294, 296.
Planning, charting, and scoring for marching bands.

581. Twentieth-Century Orchestration. (3:3:0) W Prerequisite: Music 481.
New techniques for standard and new instruments; analysis and listening.

583. Sixteenth-Century Counterpoint. (3:3:0) W Prerequisite: Music 483.
Strict modal counterpoint in sixteenth- century style (Palestrina); includes species, text setting, and motet.

591. Advanced Topics in Keyboard Harmony. (2:2:0) F Prerequisite: instructor's consent.
Topics vary.

595. Score Analysis. (2:2:0) F, Su
Analysis of representative choral and instrumental works from the Renaissance through contemporary styles.

596. Schenker Analysis. (3:3:0) W Prerequisite: Music 303, 395; or equivalent.
Schenker's system of tonal analysis.

599R. Academic Internship. (1–6:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
Internship in creative, performing, producing, or teaching applications of major course work.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Music Faculty

Professors

Bachelder, Daniel F. (1975) BM, U. of Montana, 1961; MM, U. of Idaho, 1965; PhD, Brigham Young U., 1976.
Blackinton, David P. (1980) BM, MM, U. of Michigan, 1964, 1966; DMA, Catholic U. of America, 1975.
Bush, Douglas E. (1978) BA, MM, Brigham Young U., 1972, 1974; PhD, U. of Texas, 1982.
Dabczynski, Andrew (2001) BM, Eastman School of Music, 1976; MA, U. of Connecticut, 1978; PhD, U. of Michigan, 1994.
Dayley, K. Newell (1970) BS, Brigham Young U., 1964; MM, U. of Southern California, 1966; DA, U. of Northern Colorado, 1986.
Durham, Thomas L. (1978) BM, MM, U. of Utah, 1974, 1975; PhD, U. of Iowa, 1978.
Giovannetti, Geralyn (1990) BM, MM, U. of Western Ontario, 1978, 1980; DMA, U. of Michigan, 1990.
Gruppman, Vesna (1999) BM, MM, Special Central Music School, Moscow, Russia, 1970, 1974; Doctorate, Moscow Conservatory, 1979.
Hicks, Michael D. (1985) BM, Brigham Young U., 1980; MM, DMA, U. of Illinois, 1981, 1984.
Hopkin, J. Arden (1990) BM, Brigham Young U., 1971; MM, North Texas State U., 1974; DMA, U. of Rochester, 1978.
Johnson, Steven P. (1987) BA, MA, California State U., Fullerton; 1976, 1979; PhD, U. of California, Los Angeles, 1989.
Katseanes, Kory (1999) BA, MM, U of Utah, 1976, 1979.
Lowe, Laurence (1993) BM, San Francisco Conservatory, 1980; MM, U. of Rochester, 1981.
Monson, Dale E. (1999) BA, MA, Brigham Young U., 1975, 1976; PhD, Columbia U., 1982.
Peery-Fox, Irene W. (1994) BA, MS, The Juilliard School, 1969, 1972; DMA, Peabody Conservatory of Johns Hopkins U., 1987.
Powley, E. Harrison (1969) BM, MA, PhD, U. of Rochester, 1965, 1968, 1975.
Randall, David M. (1970) BS, Brigham Young U., 1965; MM, Indiana U., Bloomington, 1967; DMA, U. of Iowa, 1970.
Robison, Clayne W. (1973) BA, Brigham Young U., 1962; JD, Harvard U., 1965; BA, Brigham Young U., 1970; MM, DMA, U. of Washington, 1971, 1973.
Sargent, David H. (1976) BA, MA, Brigham Young U., 1966, 1968; MM, DMA, U. of Illinois, 1969, 1975.
Shumway, Jeffrey L. (1985) BM, Brigham Young U., 1976; MM, The Juilliard School, 1977; DM, Indiana U., 1982.
Smith, C. Raymond (1982) BM, Brigham Young U., 1975; MM, DM, Indiana U., 1976, 1982.
Staheli, Ronald J (1978) BA, Brigham Young U., 1972; MM, DMA, U. of Southern California, 1973, 1977.
Vincent, Lawrence P. (1997) BA, Brigham Young U., 1973; MM, Northern Arizona U., 1977; DMA, U. of Michigan, 1981.

Associate Professors

Anderson, Richard Paul (1972) BA, Arizona State U., 1968; MM, Northwestern U., 1970; DMA, U. of Colorado, 1986.
Asplund, Christian (2002) BM, Brigham Young U., 1988; MA, Mills Coll., 1993; DMA, U. of Washington, 1998.
Boothe, Randall W. (1982) BA, Brigham Young U.—Hawaii, 1975; MM, Brigham Young U., 1979.
Brough, Ronald P. (1984) BM, MM, North Texas State U., 1981, 1983; DA, U. of Northern Colorado, 1997.
Brown, David C. (1998) BM, Indiana U., 1975; MM, U. of Toledo, 1997.
Cook, R. Don (1991) BM, MM, Brigham Young U., 1980, 1982; DMA, U. of Kansas, 1987.
Hansen, Eric (2001) BM, MM, Peabody Conservatory, Johns Hopkins U.
Howard, Luke (2002) BMusEd, U. of Sydney, Australia, 1991; MA, Brigham Young U., 1994; PhD, U. of Michigan, 1997.
Jaccard, Jerry (1993) BME, U. of Arizona, 1965; MME, Holy Names Coll., 1976; EdD, U. of Massachusetts, 1995.
Jessop, Scott Gordon (1980) BS, MS, Utah State U., 1961, 1964; EdS, U. of Utah, 1973; PhD, Brigham Young U., 1980.
Jones, Stephen M. (1991) BM, Brigham Young U., 1983; MM, DMA, U. of Cincinnati, 1986, 1989.
Kenney, Susan Hobson (1977) BS, U. of Utah, 1966; MA, Brigham Young U., 1978.
Lindeman, Stephan D. (1996) BM, Indiana U., 1977; MA, Queens Coll., City U. of New York, 1984; PhD, Rutgers U., 1995.
Peterson, Donald L. (1986) BM, MA, Brigham Young U., 1976, 1983; DMA, Arizona State U., 1986.

Assistant Professors

Bigelow, Anny Claudine (1999) BM, MM, Brigham Young U., 1991, 1994; DMA, U. of Maryland, 2001.
Boren, Murray E. (1994) BM, MA, Brigham Young U., 1975, 1977; DMA, City U. of New York, 2001.
Broomhead, Paul G. (1995) BM, MM, Brigham Young U., 1989, 1990.
Call, R. Steven (1991) BM, MM, Utah State U., 1971, 1975; PhD, U. of Utah, 2000.
Christensen, Ruth (2000) BM, Brigham Young U., 1991; MM, Arizona State U., 1993; DMA, U. of Michigan, 1999.
Clayton, April (2000) BM, MM, U. of Cincinnati College–Conservatory of Music, 1995, 1996; DMA, The Juilliard School, 2001.
Hall, Rosalind (2000) BM, Royal Academy of Music, London, England, 1977; MM, Brigham Young U., 1992.
Harker, Brian C. (1997) BA, MA, Brigham Young U., 1990, 1994; MPhil, PhD, Columbia U., 1995, 1997.
Hinckley, Jaren (2001) BM, U. of Utah, 1993; MM, Indiana U., 1995; DM, Florida State U., 2001.
Holden, Scott (2002) BM, U. of Michigan, 1992; MM, The Juilliard School, 1995; DMA, Manhattan School of Music, 2002.
Lockwood, Gayle (1999) BM, Brigham Young U., 1968; MM, U. of Utah, 1971.
Reed, Julie Bevan (2000) BM, Brigham Young U., 1973; MM, U. of Southern California, 1975.
Ricks, Steven Leon (2002) BM, Brigham Young U., 1993; MM, U. of Illinois, 1995; PhD, U. of Utah, 2001.
Smith, Christian B. (1997) BM, MM, Brigham Young U., 1991, 1993.

Emeriti

Arbizo, Ray L. (1970) BA, MA, Arizona State U., 1952, 1955.
Belnap, Parley L. (1965) BA, MA, Brigham Young U., 1950, 1956; DMA, U. of Colorado, 1975.

Curtis, Brandt B. (1955) BA, Brigham Young U., 1953; MM, DMA, Indiana U., Bloomington, 1955, 1978.
Dalton, David (1963) BM, MM, U. of Rochester, 1959, 1961; DM, Indiana U., Bloomington, 1970.
Downs, Robert H. (1966) BM, MM, U. of Missouri, Kansas City, 1957, 1957.
Gibbons, Rendol L. (1964) BA, MA, Arizona State Coll., 1947, 1954; PhD, U. of Colorado, 1969.
Goodman, A. Harold (1960) BA, U. of Arizona, 1947; MM, EdD, U. of Southern California, 1951, 1960.
Harris, H. Jarolde (1970) BM, Bethany Coll., 1950; MM, Northwestern U., 1954.
Hatton, Gaylen A. (1979) BA, MA, Brigham Young U., 1951, 1954; PhD, U. of Utah, 1964.
Laycock, Ralph G. (1953) BA, Brigham Young U., 1941; MS, The Juilliard School, 1948; DMA, U. of Southern California, 1970.
Mason, James A. (1957) BA, MA, Brigham Young U., 1955, 1957; EdD, Arizona State U., 1970.
Nibley, Reid N. (1969) BFA, MA, U. of Utah, 1950, 1953; DMA, U. of Michigan, 1964.
Pollei, Paul C. (1963) BM, U. of Utah, 1961; MM, U. of Rochester, 1962; PhD, Florida State U., 1975.
Pratt, Rosalie Rebollo (1979) BM, Manhattanville Coll., 1954; MM, Rosary Coll., 1955; EdD, Columbia U., 1976.
Ripplinger, Donald H. (1975) BA, Brigham Young U., 1954; MS, PhD, U. of Utah, 1965, 1968.
Smith, Robert Baily (1967) BA, MA, Brigham Young U., 1957, 1967.
Stuart-Bachelder, Lila R. (1986) BM, U. of Utah, 1964; MM, DMA, Indiana U., 1968, 1993.
Stubbs, Darrel W. (1962) BM, U. of Rochester, 1949; MM, Indiana U., Bloomington, 1952; DMA, U. of Southern California, 1966.
Terry, Elvis B. (1957).
Williams, Glenn R. (1965) BA, Brigham Young U., 1953; MM, DMA, U. of Rochester, 1954, 1961.
Woodward, Ralph (1955) BS, U. of Idaho, 1940; MM, Cincinnati Conservatory, 1948; DMA, U. of Illinois, 1964.

Native American Studies

See History.

Near Eastern Languages

See Asian and Near Eastern Languages.

Neuroscience Center

Neuroscience Center Office
633 WIDB, (801) 422-1218

Edwin D. Lephart, Director
785 WIDB, (801) 422-8970

College of Biology and Agriculture Advisement Center
380 WIDB, (801) 422-3042

Admission to Degree Program

The degree program in the Neuroscience Center carries special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Neuroscience is the field of study covering the development and function of the central nervous system and its connection to influencing/regulating behavior. The study of neuroscience examines topics such as neuroanatomy, neuropsychopharmacology, neurophysiology, molecular neurobiology, and neuroendocrinology. The interdisciplinary nature of neuroscience requires the tools provided by experience and training in calculus, general biology, genetics, physiology, molecular biology, chemistry (general, organic, and biochemistry), physics, psychology (hormones and behavior, memory, cognition, sensation, and perception), and research design and analysis.

The objectives for students pursuing a major in neuroscience are to (1) establish and promote an interdisciplinary education in neuroscience, (2) produce scientifically literate individuals having the ability to design, conduct, and analyze research activities, and (3) have students think critically in an integrative fashion based upon research-rich and inquiry-based academic curricula.

Career Opportunities

Neuroscience prepares students to pursue advanced degrees in graduate school or to enter into the pharmaceutical and biotechnology workforce. Neuroscience is an excellent preprofessional field of study for those interested in health professions, law, or business.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under the following undergraduate degree program.

Undergraduate Programs and Degrees

BS Neuroscience

Students should see their college advisement center for help or information concerning the undergraduate programs.

BS Neuroscience (66–67 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the Biology and Agriculture College Advisement Center for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following:
   Biol 120, 220.
2. Complete the following:
   Biol 240, 340, 360.
   Neuro 205, 460, 480, 481.
   PDBio 362, 363.
   Psych 370.
3. Complete the following:
   Chem 105, 106, 107, 351, 352, 481.
4. Complete one of the following options:
   Either Phscs 105, 106, 107, 108.
   Or Phscs 121, 123, 220.
5. Complete the following:
   Engl 316.
   Math 119.
   Stat 221.
6. Complete one course from the following:
   PDBio 561, 565.
   Psych 584, 585, 586.

*Hours include courses that may fulfill GE or university requirements.

Neuroscience (Neuro)

Undergraduate Courses

205. Neurobiology. (3:3:0) F, W Prerequisite: neuroscience majors or pre-neuroscience majors.
The nervous system; cellular communication, neural basis of behavior, and hormonal influences.

449R. Undergraduate Research Experience. (1–3:0:0 ea.) F, W, Sp, Su
Undergraduate research experience in neuroscience.

460. Behavioral Neuroscience. (3:3:0) F, W Prerequisite: Neuro 105; neuroscience major status.
Critical examination of anatomical, physiological, and chemical bases of behavioral expression.

480. Advanced Neuroscience. (3:3:0) F, W Prerequisite: Neuro 105; neuroscience majors only.
Principles of neural science. Structure-function relationships and integration of the nervous system.

481. Neuroscience Laboratory. (1:0:3) F, W Prerequisite: Neuro 480 or concurrent enrollment; neuroscience majors only.
Exposure to neuroanatomy and classical/modern experiments in neuroscience.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Neuroscience Faculty

Professors

Bell, John D. (1990) BS, Brigham Young U., 1982; PhD, U. of California, San Diego, 1987.
Bigler, Erin D. (1990) BS, PhD, Brigham Young U., 1971, 1974.
Bloch, George J. (1989) BS, Brandeis U., 1962; MA, Claremont Graduate School, 1965; PhD, Stanford U., 1968.
Busath, David D. (1995) BA, MD, U. of Utah, 1974, 1978.
Fleming, Donovan E. (1971) BS, MS, Brigham Young U., 1956, 1957; PhD, Washington State U., 1962.
Lephart, Edwin D. (1994) BS, MS, Brigham Young U., 1979, 1982; PhD, U. of Texas Southwestern Medical Center, Dallas, 1989.
Porter, James P. (1998) BS, MS, Brigham Young U., 1976, 1978; PhD, U. of California, San Francisco, 1982.
Rhees, Reuben Ward (1973) BS, U. of Utah, 1967; PhD, Colorado State U., 1971.
Simmons, Daniel L. (1989) BS, MS, Brigham Young U., 1978, 1980; PhD, U. of Wisconsin, Madison, 1986.
Woodbury, Dixon J. (2001) BS, U. of Utah, 1980; PhD, U. of California, Irvine, 1986.

Associate Professor

Judd, Allan M. (1991) BS, MS, Brigham Young U., 1973, 1978; PhD, West Virginia U., 1982.

Assistant Professors

Flom, Ross (2001) BS, U. of Minnesota, 1992; MS, Idaho State U., 1993; PhD, U. of Minnesota, 1999.
Hedges, Dawson W. (2000) BS, Weber State Coll., 1984; MD, U. of Utah, 1988.
Hopkins, Ramona O. (1999) BS, Westminster College, 1988; MS, PhD, U. of Utah, 1992, 1996.
Stark, Michael R. (2001) BS, Brigham Young U., 1992; MS, Idaho State U., 1994; PhD, U. of California, Irvine, 1998.
Steffensen, Scott C. (2000) BS, PhD, U. of Utah, 1980, 1986.
Sudweeks, Sterling N. (2001) BS, Brigham Young U., 1992; PhD, U. of Utah, 1997.

Visiting Research Associate Professor

Manwaring, Kim H. (1999) BS, Brigham Young U., 1975; MD, U. of Washington, 1979.

North American Indian Languages

See Center for Language Studies.

Norwegian

See Center for Language Studies.

Nursing

Elaine Sorensen Marshall, Dean
500A SWKT, (801) 422-2747

Barbara Mandleco, Associate Dean
444 SWKT, (801) 422-7199

RaeJeanne Memmott, Associate Dean
500D SWKT, (801) 422-7210

Mary Williams, Associate Dean
500E SWKT, (801) 422-5626

College of Nursing Advisement Center
551 SWKT, (801) 422-4173

Admission to Degree Program

The degree programs in the College of Nursing carry special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Brigham Young University's baccalaureate nursing program prepares general clinicians with the knowledge, skills, leadership abilities, and values commensurate with professional nursing practice. Nursing education builds on the sciences, humanities, and religious studies to develop the strong theoretical and practical base necessary to understand and meet the needs of people in various health care settings.

Learning comes alive as students move from the classroom through the clinical simulation laboratory to actual patient care. Students assess, diagnose, and treat actual and potential problems in an effort to promote, restore, or maintain health. Baccalaureate graduates develop their ability to be sensitive to the welfare of others, communicate effectively, evaluate research findings, think critically, solve problems, and utilize appropriate technology as they provide quality nursing care to people of all ages.

Career Opportunities

There are career positions in various health care settings.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0

Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under the following undergraduate degree program.

Undergraduate Programs and Degrees

BS Nursing

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Nursing

For more information see the BYU 2003–2004 Graduate Catalog.

Undergraduate Admittance Requirements

The following criteria have been established for acceptance and progression in the baccalaureate program.

1. Be fully matriculated at BYU.
2. Have completed the required prerequisite courses with a C grade or higher and an overall grade point average of not less than 3.0 in prerequisite courses. Acceptance into the nursing major is competitive and restricted to a limited number of openings each year. Not all students who meet the minimum GPA and course completion requirements are guaranteed acceptance into the program.

Students are evaluated on a variety of criteria, including, but not limited to academic performance and progression, written communication skills, community, school, and church service, and recommendations from employers and/or educators.

3. Complete the following before beginning nursing courses:
   Engl 115.
   Chem 152, 281.
   MFHD 210 or Psych 220.
   NDFS 100.
   MMBio 221, 222.
   Nurs 180.
   PDBio 220, 305, 365.
   Stat 221.

   Note: Students may apply to the baccalaureate program during the semester they are completing prerequisite courses.
4. Students with English as a second language: Take the English Proficiency Examination offered by the Linguistics and English Language Department plus all ESL service courses as recommended by the examination outcome. Successfully complete Nurs 102. The college requires a TOEFL score of at least 580.
5. Maintain a C grade or above in all nursing courses, including prerequisite and supporting courses. C– is not considered a passing grade in the nursing program.

Note 1: Notify the college advisement center before dropping or interrupting course work.

Note 2: Transfer credit older than seven years will not apply to the major without prior approval of the associate dean of student affairs.

Note 3: Students may repeat only one prerequisite course one time.

Applicants who meet the above criteria are eligible for consideration for acceptance. Students who have been admitted to BYU must apply for the nursing program through the college advisement center (551 SWKT). Students are accepted fall and winter semesters. Application deadlines and requirements are available from the advisement center. Nursing students are required to have a physical examination and submit immunization records to the Nursing Advisement Center. CPR and first aid certification are also required.

Computers are used in all health care facilities; therefore students are expected to be computer literate when accepted into the College of Nursing.

Note: Associate degree registered nurses and licensed practical nurses who wish to enter the baccalaureate program must contact the College of Nursing Advisement Center for specific acceptance information.

General Information

The National League for Nursing Accreditation Commission is a resource for further information. Contact the NLNAC, 350 Hudson Street, New York, NY 10014, (212) 989-9393.

Clinical Assignments and Transportation.

Educational experiences are located in Utah, Salt Lake, and Davis counties. Theory courses are taught in Provo. Clinical experiences are in agencies throughout the Wasatch Front. Visits to agencies and client homes are also required. To achieve the best possible clinical education, students will need to travel at different times during their course work. Access to a car is highly recommended. Students are responsible for their own transportation. Transcultural clinical experiences are located in rural Utah. International clinical experiences are available.

BS Nursing (94 hours*)

Major Requirements

1. A C grade or above must be maintained in all required courses.
2. Be accepted into the program.
3. Complete the following:
   Chem 152.
   NDFS 100.
   PDBio 220.

   Note: Chem 101 is needed prior to Chem 152 if you have had no previous chemistry experience.
4. Complete the following:
   Chem 281.
   Nurs 180.
   PDBio 305.
   Stat 221.

   Note: Math 110 (or equivalent) may need to be taken prior to Stat 221.

5. Complete one course from the following:
   MFHD 210.
   Psych 220.
6. Complete the following:
   MMBio 221, 222.
   PDBio 365.
7. Complete one course from the following:
   Soc 112, 323.
   Anthr 101.
8. Complete the following:
   Nurs 294, 296, 298.
9. Complete the following:
   Nurs 300, 330.
   RelC 492 (2 hours required; nursing section)
10. Complete the following:
    Nurs 340, 360, 400.
    Psych 342.
11. Complete the following:
    Nurs 320, 460, 470.
12. Complete the following:
    Nurs 480, 490.

*Hours include courses that may fulfill GE or university requirements.

Nursing (Nurs)

Undergraduate Courses

102. Nursing and Medical Terminology. (2:2:0) Independent Study only.
Nursing and medical terminology for prenursing and beginning nursing students or those interested in health occupations.

180. Preview of Nursing. (1:2:0) On blk.
Defines and explores nursing as a potential career opportunity.

288. Family Health Management. (2:2:0) Prerequisite: non–nursing major status.
Promotion and maintenance of health over the life span, emphasizing current issues affecting family health.

294. Health Assessment and Health Promotion. (3.5:2.5:3) F, W Prerequisite: admission to College of Nursing; concurrent enrollment in Nurs 296, 298.
Acquiring and applying health assessment knowledge and skills. Health promotion, health maintenance, and therapeutic communication.

296. Introduction to Community Health Nursing. (3.5:2:3) F, W Prerequisite: admission to College of Nursing; concurrent enrollment in Nurs 294, 298.
Acquiring and applying basic community health nursing concepts in a variety of settings. Health of groups and/or populations.

298. Nursing Care of Older Adults. (5:2:7) F, W Prerequisite: admission to College of Nursing; concurrent enrollment in Nurs 294, 296.
Acquiring basic nursing skills and applying them to older adults in residential and inpatient settings.

300. Pharmacology in Nursing. (2:1.5:1) F, W Prerequisite: Nurs 294, 296, 298; concurrent enrollment in Nurs 330.
Common categories of drugs: their action, use, and desired and undesired effects; implications for nursing care.

312. Nursing Core 4. (5:4:14) On blk. Prerequisite: Nurs 310.
Increasing competency in applying the nursing process to individuals and families in varied health care settings.

314. Nursing Core 5. (5:4:14) On blk. Prerequisite: Nurs 310.
Increasing competency in applying the nursing process to individuals and families in varied health care settings.

320. Nursing Research. (2:2:0) Prerequisite: an Advanced Writing course, Nurs 290, 292, 310, 312, 314; Stat 221 or comparable statistics course.
Analysis and critique of research in nursing practice.

330. Nursing Care of Adults with Acute and Chronic Illnesses. (9:4:14) F, W Prerequisite: Nurs 294, 296, 298; concurrent enrollment in Nurs 300.
Acquiring and applying knowledge and skills necessary to provide nursing care to the adult patient with acute and chronic illness.

340. Nursing Care of the Childbearing Family. (4:2:6) F, W Prerequisite: Nurs 294, 296, 298, 300, 330; concurrent enrollment in Nurs 360, 400.
Care of childbearing families from diverse backgrounds. Health promotion, assessment, and interventions related to complicated and uncomplicated pregnancy and birth.

350. Health Assessment. (3:3:0) Sp Prerequisite: admission to nursing program for returning associate degree–registered nurses.
Health assessment of individuals across the lifespan. Includes well individuals and those with common acute or chronic illnesses.

355. Basic Pharmacology. (3:3:0) Independent Study only.
Introduction to basic pharmacology, including major classes of medications; implications for nursing practice.

360. Nursing Care of the Child-Rearing Family. (4:2:6) F, W Prerequisite: Nurs 294, 296, 298, 300, 330; concurrent enrollment in Nurs 340, 400.
Care of children—and their families—from diverse backgrounds. Health promotion, disease prevention, care of acute and chronic illness, and growth development.

370. Professional Nursing Practice. (3:2:1) For returning associate degree RNs only. Prerequisite: admission to nursing program.
Integration into expanded role of the baccalaureate-prepared nurse.

380. Nursing of Children in Crisis. (4:4:14) On blk. Prerequisite: Nurs 314.
Nursing interventions for children and their families.

382. Nursing Adults in Crisis. (4:3:14) On blk. Prerequisite: Nursing 314.
Nursing interventions for individuals and families in crisis.

384. Psychiatric Nursing. (4:3:15) On blk. Prerequisite: Nurs 314, Psych 342.
Nursing care for clients with complex psychiatric disorders.

390R. Independent Study in the Practice of Nursing. (1–9:Arr.:Arr. ea.) Prerequisite: instructor's consent.

400. Global Health and Human Diversity. (4:1.5:7) F, W Prerequisite: Nurs 294, 296, 298, 300, 330; concurrent enrollment in Nurs 340, 360.
Theory and practice of nursing in diverse populations within a global context.

403. Health Policy. (2:1:1)
Exploring nurse's role in identifying, formulating, legitimizing, and implementing health policy.

420. Community/Population Health Nursing. (4:3:1) For returning associate degree RNs only. Prerequisite: admission to nursing major.
Principles and practices of nursing care for individuals, families, aggregates, and populations within community-based settings.

450R. Special Topics in Clinical Nursing. (4:4:12 ea.) On blk. Prerequisite: Nurs 312, 314.
Experience in clinical nursing specialties.

460. Psychiatric Nursing. (3:1.5:4.5) F, W Prerequisite: Nurs 294, 296, 298, 300, 330, 340, 360, 400; concurrent enrollment in Nurs 470.
Nursing care for clients with complex psychiatric disorders.

470. Nursing Care of Adults in Crisis. (7:3:11) F, W Prerequisite: Nurs 294, 296, 298, 300, 330, 340, 360, 400; concurrent enrollment in Nurs 460.
Nursing intervention for individuals and families in crisis.

480. Nursing Senior Seminar. (1:2:0) F, W Prerequisite: concurrent enrollment in Nurs 490; completion of all other courses in nursing major.
Characteristics of the nursing profession; professional behaviors and values. Review of nursing history.

490. Nursing Capstone. (8:2:18) F, W Prerequisite: Nurs 294, 296, 298, 300, 320, 330, 340, 360, 400, 460, 470.
Clinical synthesis experience with focus on planning, delivering, and managing patient care in complex environments. Leadership components incorporated into clinical.

499R. Honors Thesis. (1–3:0:0 ea.)
Honors thesis preparation.

500-Level Graduate Courses (available to advanced undergraduates)

555. Pharmacology in Advanced Practice. (3:3:0)
Principles of pharmacology and drug therapy for advanced-practice nurses.

590R. Independent Study. (1–4:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individualized study.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Nursing Faculty

Professors

Baldwin, Joan (1994) BS, MA, Hampton U., 1973, 1975; MSN, U. of San Diego, 1978; DNS, Catholic U., 1992.
Callister, Lynn Clark (1988) BS, Brigham Young U., 1964; MN, Wichita State U., 1988; PhD, U. of Utah, 1993.
Lookinland, Sandra (1998) BS, Loma Linda U., 1974; MS, California State U., 1980; PhD, U. of California, 1983.
Marshall, Elaine S. Sorensen (1987) BS, MS, PhD, U. of Utah, 1972, 1979, 1988.

Associate Professors

Beckstrand, Renea L. (1987) AS, Ricks Coll., 1979; AS, BS, MS, Brigham Young U., 1981, 1983, 1987; PhD, U. of Utah, 2001.
Mandleco, Barbara L. (1977) BSN, U. of Wisconsin, Madison, 1967; MN, U. of Florida, 1968; PhD, Brigham Young U., 1991.
Matsumura, Geraldine (2001) BS, MS, PhD, U. of Utah, 1971, 1986, 1993.
Memmott, Rae Jeanne (1992) BS, Brigham Young U., 1965; MS, U. of Colorado, 1967.
Riddle, Lana B. (1971) BS, Brigham Young U., 1969; MS, U. of Utah, 1971; PhD, Texas Woman's U., 1984.
Rogers, Sandra (1980) BS, Brigham Young U., 1974; MS, U. of Arizona, 1980; DNSc, U. of California, San Francisco, 1989.
Rushton, Patricia (1995) BS, U. of Utah, 1971; MS, PhD, Brigham Young U., 1977, 1989.
Schwartz, Rosanne (1981) BS, MS, Brigham Young U., 1978, 1981; PhD, U. of Florida, 1991.
Williams, Mary (1978) BS, Brigham Young U., 1971; MS, U. of Utah, 1979; PhD, U. of Arizona, 1991.

Associate Teaching Professor

Anderson, Vickie Lane (1980) BS, MS, Brigham Young U., 1975, 1983.

Assistant Professors

Berry, Judith (1997) BS, Brigham Young U., 1969; MS, Catholic U. of America, 1984.
Bond, Elaine (1991) BS, MS, U. of Utah, 1989, 1990; PhD, San Diego State U., 1997.
Coverston, Catherine R. (1989) AS, Brigham Young U., 1969; BSN, U. of the State of New York, Albany, 1987; MSN, Medical Coll. of Georgia, 1989; PhD, U. of Utah, 2001.
Johnson, Mary Jayne (1996) BS, MS, Brigham Young U., 1982, 1996; PhD, U. of Utah, 2001.
Ravert, Patricia (1999) BS, MS, Brigham Young U., 1975, 1999.
Tiedeman, Mary E. (1996) BS, Michigan State U., 1964; MN, U. of Florida, 1975; PhD, Wayne State U., 1988.
Wiker, Kathleen M. (1972) BS, MS, U. of Utah, 1965, 1969.

Assistant Teaching Professors

Abegglen, JoAnn (1985) BS, Brigham Young U., 1967; MS, U. of Utah, 1973; MS, Brigham Young U., 1988.
Blad, Kent (1999) BS, U. of Utah, 1987; MS, Brigham Young U., 1999.
Blad, Paul (2001) AA, Snow Coll., 1981; BS, U. of Utah, 1986; MPA, Golden Gate U., 1989.
Campbell, Lora Jean (1972) BS, Brigham Young U., 1969; MS, U. of Utah, 1972.
Christiaens, Glenda (2000) BS, MS, U. of Utah, 1994, 1999.
Ellinger, Patricia R. (1996) BS, Brigham Young U., 1970; MS, U. of Utah, 1991.
Mills, Debra Ann (1996) AS, Ricks Coll., 1974; BS, MS, Brigham Young U., 1982, 1989.
Palmer, Sheri (2001) BS, Brigham Young U., 1985; MS, Idaho State U., 1990.
Stoneman, Eva (1997) BS, MS, Brigham Young U., 1959, 1997.

Instructors

Carlton, Troy (2000) AS, Weber State U., 1982; BS, U. of Utah, 1987; MS, Brigham Young U., 1996.
Cox, Amy (2001) BS, MS, Brigham Young U., 1997, 2000.
Freeborn, Donna (1999) AS, Brigham Young U., 1974; BS, Chapman U., 1983; MS, U. of California, Los Angeles, 1994.
Lavender, Carol (1998) BS, U. of Texas, Austin, 1973; MS, U. of Texas, Houston, 1998.
Miller, Carma (2001) AD, Weber State Coll., 1989; BS, Weber State U., 1997; MS, Brigham Young U., 2000.
Sutherland, Carolyn (1997) BA, BS, Brigham Young U., 1964, 1990; MS, U. of Utah, 1996.

Emeriti

Alley, Laura Ellen (1972) BS, MS, U. of Utah, 1966, 1968.
Andersen, Rayola H. (1971) AD, BS, MS, U. of Utah, 1948, 1949, 1969; MN, Brigham Young U., 1979.
Bartholomew, Jewel A. (1970) BS, Brigham Young U., 1969, MS, U. of Utah, 1976.
Chaffin, Beverly H. (1976) BS, MS, U. of Utah, 1965, 1969.
Cope, Maxine J. (1970) BS, MS, EdD, U. of Utah, 1948, 1957, 1967.
Dyer, Elaine D. (1975) BS, St. Mary Coll., 1946; MS, PhD, U. of Utah, 1955, 1967.
Fosbinder, Donna (1991) BS, San Diego State U., 1983; MS, U. of San Diego, 1986; PhD, San Diego State U., 1990.
Hammond, Kathleen B. (1964) BS, Brigham Young U., 1960; MS, U. of Utah, 1964.
Hammond, Marilyn (1985) BS, MS, U. of Utah, 1953, 1969.
Isaacs, Patricia C. (1977) BS, MS, U. of Utah, 1975, 1977; EdD, Brigham Young U., 1988.
Jensen, Marian (1970) BS, MS, U. of Utah, 1960, 1968; MS, EdD, Brigham Young U., 1979, 1992.
Jorgensen, Evelyn P. (1977) BS, MS, U. of Utah, 1947, 1975.
Leifson, June (1971) BS, Brigham Young U., 1957; MS, Wayne State U., 1964; PhD, Brigham Young U., 1979.
Mangum, Sandra (1983) BS, BA, Brigham Young U., 1958, 1959; MN, U. of Washington, 1962.
Murphy, Elaine (1967) BS, MS, U. of Utah, 1959, 1963.
Schmidt, Alice M. (1965) BS, U. of Iowa, 1947; MS, EdD, Brigham Young U., 1964, 1977.
Talmage, Carol (1985) BS, MS, Brigham Young U., 1950, 1984.
Wilson, Mary Louise (1979) BS, U. of Utah, 1953; MPH, U. of California, Berkeley, 1966; MS, U. of California, San Francisco, 1978.

Nutrition, Dietetics, and Food Science

Lynn V. Ogden, Chair
S-221 ESC, (801) 422-3912

College of Biology and Agriculture Advisement Center
380 WIDB, (801) 422-3042

Admission to Degree Program

Some degree programs in the Department of Nutrition, Dietetics, and Food Science carry special enrollment limitations. Please see the department for specific details.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Dietetics
BS Food Industry Management
BS Food Science
BS Nutritional Science

Minors Food Science
Nutrition

Students should see their college advisement center for help or information concerning the undergraduate programs.

Note: For the molecular biology program, see the Microbiology and Molecular Biology section of this catalog.

Graduate Programs and Degrees

MS Food Science
MS Nutritional Science

For more information see the BYU 2003–2004 Graduate Catalog.

BS Dietetics (78 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see below for information regarding requirements for admission to this major.

Following prerequisite courses, the Didactic Program in Dietetics (DPD) consists primarily of dietetics course work at the junior and senior level. The Brigham Young University Didactic Program in Dietetics is currently granted accreditation status by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, 216 W. Jackson Blvd., Chicago, IL 60606-6995, (312) 899-4876. Following graduation, students must gain acceptance into and complete a dietetic internship (DI) to qualify for the national examination required for Registered Dietitian (RD) status.

Program Acceptance Requirements

1. Students must apply by February 15th for admission into the professional sequence in the fall.
2. Enrollment is limited to 40 students.
3. Applicants must have a GPA of at least 3.0, have at least a B– in all nutrition, dietetics, and food science classes and at least a C– in all other major courses.
4. They must also have at least 300 hours of dietetics-related work and/or volunteer experience.

Major Requirements

1. Complete the following prerequisite courses (must be completed before professional sequence):
   NDFS 100, 200, 250, 251, 290.
2. Complete the following:
   Chem 152, 281.

   Note: Chem 105, 106, 107, 351, 352, 481 are recommended for those interested in pursuing graduate work in nutrition.
3. Complete one course from the following:
   Chem 103
   MMBio 222.
4. Complete the following:
   Acc 200.
   MMBio 221.
   PDBio 220, 305.
   Psych 111.
   Stat 221.
5. Be admitted to the dietetics professional program.
6. Complete the following professional sequence courses (after being admitted into the program):
   NDFS 300, 356, 374, 375, 400, 401, 405, 424, 435, 440, 445, 458, 466, 475, 490, 491.
   PDBio 365.

Recommended Courses

BusM 300, 340.
NDFS 310, 361.

Recommended Minors

The following minors are very complementary to a dietetics major, but any area of interest could be considered:

Business
Communication
Gerontology (See School of Family Life).
International Development
Spanish

*Hours include courses that may fulfill GE or university requirements.

BS Food Industry Management (62 hours*)

The Discipline

There is an increasing demand for students graduating with a background in both food science and business. The multibillion dollar food industry continues to expand, both domestically and internationally, as a growing percentage of the population depends on food produced and preserved by that industry. Students wishing to focus on the industry's business aspects will find this emphasis to be excellent preparation for immediate employment as well as a stepping stone to a master of business administration (MBA) degree. Students graduating in food industry management will also have a business minor in management. (Those wishing to pursue advanced degrees other than the MBA degree or other professional programs should visit with an advisor before selecting this emphasis.)

Valuable experience is gained through numerous opportunities available in the program, including a required internship in the food industry. Students develop a network of professional contacts through participation in the Food Science Club, professional organizations, and national competitions. Scholarships are available from department, college, university, and professional organizations.

Career Opportunities

Graduates are prepared for employment in commercial and private food companies ranging from small entrepreneurial businesses to large corporations. Opportunities for business-oriented careers abound in such areas as food production management, food company management, food ingredient technical sales, and other management opportunities that require an understanding of technical and scientific issues.

Major Requirements

1. Consult with a faculty advisor prior to finalizing your curriculum plan.
2. Complete the following:
   NDFS 100, 191, 250, 251, 350, 361, 362, 450, 462, 464, 465.
3. Complete at least 1 hour of the following:
   NDFS 399R.
4. Complete the following:
   Acc 200.
   BusM 300, 488, 489.
   Chem 105, 152.
   Econ 110, 210.
   MMBio 221, 222.
   OrgB 320.
   Stat 221.
5. Complete one course from the following:
   BusM 371R, 380, 382.

Recommended Courses

Consult with a faculty advisor before selecting:

Chem 281.
Engl 316.
IAS 220.
Math 119.
Mfg 201, 202, 479.
NDFS 200, 355.
PAS 205.
Phscs 105, 106.
TMA 150.

*Hours include courses that may fulfill GE or university requirements.

BS Food Science (63 hours*)

The Discipline

Food science is a multidisciplinary field that utilizes biology, chemistry, nutrition, engineering, and other sciences as they relate to the study of food. The principles of these disciplines are applied to develop new food products; to preserve food, using various processes and packaging; and to assure the safety and quality of food during storage. Food science involves the conversion of raw agricultural products into a nutritious, convenient, and economical food supply. Most of the food products available in grocery stores were developed and tested by food scientists. Approved by the Institute of Food Technologists, the principal professional organization of food scientists, the curriculum provides excellent preparation as a premedical, predental, or other preprofessional major. With the addition of one course, students graduating with this degree are able to obtain a minor in chemistry.

Valuable experience is gained through numerous opportunities available in the program, including faculty-mentored research, employment within the department, and paid food industry internships. Students also develop a network of professional contacts through participation in the Food Science Club, professional organizations, and national competitions. Scholarships are available from department, college, university, and professional organizations.

Career Opportunities

Exciting careers are found in such areas as developing new foods, ensuring food safety and quality, or researching ways to better preserve and store food. Salaries are highly competitive. Typically there are not enough graduates for the unique and challenging opportunities available in the worldwide, multibillion dollar food industry. The many facets of food science provide employment in large and small food companies, food ingredient companies, government agencies, and universities. Graduates are prepared for immediate employment, further study toward advanced degrees, or professional programs such as medicine, dentistry, pharmacy, law, and business.

Major Requirements

1. Consult with a faculty advisor prior to finalizing your curriculum plan.
2. Complete the following core requirements:
   NDFS 200, 250, 251, 350, 355, 361, 362, 450, 462, 464, 465.
3. Complete 10 hours from the following:
   Chem 105, 106, 107, 152, 351, 352, 353.

   Note: Students interested in graduate or professional study should select the Chem 105, 106, 107, 351, 352, 353, 481 sequence.

4. Complete the following:
   Chem 481.
   Math 112, 113.
   MMBio 221, 222.
   Phscs 105.
   Stat 221.
   TMA 150.
5. During the junior year or upon declaring food science as a major, students are strongly encouraged to select one of the following options to enhance career preparation:
   A. Choose a research topic and faculty mentor. Working in a research laboratory for 10–20 hours per week over the course of eight months, the student has daily contact with graduate students, technicians, and fellow undergraduate colleagues and frequent interactions with a faculty mentor. Student research often leads to participation in a publication and/or a presentation at a professional meeting. NDFS 494R credit is available.
   B. Produce a senior thesis in collaboration with a faculty mentor, derived primarily from library study that extensively explores the relevant questions. The thesis is written in the format of a scientific review paper. NDFS 494R credit is available.
   C. Work in an approved, faculty-supervised summer internship with a food company (generally the internship does not include study abroad.) NDFS 399R credit is available.

Recommended Courses

Consult with a faculty advisor before selecting:
Chem 223.
Econ 110.
Engl 316.
IAS 220.
Mfg 201, 202, 355.
NDFS 100, 191.
PAS 205.
Phscs 106, 107, 108.

*Hours include courses that may fulfill GE or university requirements.

BS Nutritional Science (61 hours*)

This degree provides excellent preparation for those individuals in preprofessional programs (e.g., premedicine, predentistry, prelaw) or for an advanced degree (MS, PhD) in nutrition or biological sciences.

Major Requirements

1. Complete the following core requirements:
   NDFS 100, 200, 305, 435, 494R (2 hours).
2. After consulting with a faculty advisor, complete 8 hours from the following:
   Biol 240, 241, 340, 360.
   NDFS 250, 251, 310, 380, 400, 424.
3. Complete the following:
   Biol 120, 220.
   Chem 105, 106, 107, 351, 352, 353 (1 hour), 481.
   PDBio 305.
   Phscs 105, 106, 107, 108.
   Stat 221.

Recommended Courses

Chem 223.
Hlth 478.
MMBio 221.

*Hours include courses that may fulfill GE or university requirements.

Minor Food Science (16 hours*)

Many of these courses have prerequisites. Most students choosing this minor will have completed the prerequisites as part of their major. Other students will need to complete them.

Minor Requirements

1. Complete the following:
   NDFS 250, 251.
2. After consulting with a faculty advisor, complete 12 hours from the following:
   NDFS 350, 355, 361, 362, 450, 462, 464.

*Hours include courses that may fulfill GE or university requirements.

Minor Nutrition (16 hours*)

Many of these courses have prerequisites. Most students choosing this minor will have completed the prerequisites as part of their major. Other students will need to complete them.

Minor Requirements

1. Complete the following:
   NDFS 100, 200.
2. After consulting with a faculty advisor, complete 10 hours from the following:
   NDFS 201, 305, 310, 380, 400, 424, 435.

*Hours include courses that may fulfill GE or university requirements.

Nutrition, Dietetics, and Food Science (NDFS)

Undergraduate Courses

100. Essentials of Human Nutrition. (3:3:0) F, W, Sp, Su Independent Study also.
Food-oriented study of nutrition facts and principles as a basis for dietary choices; consequences of choices; scientifically examining controversial topics.

191. Introduction to Food Science. (1:1:0) F, W
Guest lectures and exposure to vocations in food science.

200. Nutrient Metabolism. (3:3:0) F, Sp Prerequisite: NDFS 100 and organic chemistry, or concurrent enrollment.
Nutrient-oriented study of nutrition facts and principles; metabolic consequences of nutrient deficiencies, imbalances, and excesses.

201. Nutrition and Prevention of Chronic Disease. (2:2:0) W Prerequisite: NDFS 100.
Role of dietary choices in preventing or ameliorating chronic diseases. Examples of dietary interventions.

203. (NDFS-PAS) International Agriculture and Nutrition. (2:2:0) W
Causes of malnutrition and agricultural solutions.

250. Essentials of Food Science. (3:3:0) F, W, Sp Prerequisite: organic chemistry or concurrent enrollment; and concurrent enrollment in NDFS 251.
Overview of food science, including chemical, physical, and microbiological principles related to food processing, storage, and utilization. Current issues in food science.

251. Essentials of Food Science Laboratory. (1:0:3) F, W, Sp Prerequisite: concurrent enrollment in NDFS 250.
Laboratory experience in the chemistry of changes occurring during food processing, storage, and utilization.

290. Introduction to Dietetics. (1:1:0) F
The profession of dietetics; exposure to specialty areas through guest lectures.

300. Clinical Nutrition 1. (4:4:0) F Prerequisite: NDFS 200; physiology, biochemistry; dietetics major status.
Nutritional assessment and medical nutrition therapy across disease states.

305. Nutritional Implications of Disease. (4:4:0) For nutritional science majors. W odd yr. Prerequisite: NDFS 200; PDBio 305; Chem 281 or 481 or equivalent; or instructor's consent.
Nutritional assessment and medical nutrition therapy across disease states.

310. Sports Nutrition. (2:2:0) F, Sp Prerequisite: NDFS 100, PDBio 305.
Scientific basis for the role of nutrition in human performance. Critical evaluation of popular practices; making optimal food choices for physical activity.

330. Principles of Animal Nutrition and Growth. (3:3:0) W
Characteristics, utilization, and sources of nutrients (carbohydrates, proteins, minerals, vitamins) fed to production animals. Introduction to growth.

350. Food Analysis. (4:2:6) W Prerequisite: Chem 351, 352, 353; NDFS 250, 251.
Principles, methods, and techniques of qualitative and quantitative physical, chemical, and biological analysis of food and food ingredients.

355. Food Process Engineering. (4:3:3) F Prerequisite: Phscs 105 and calculus.
Mass and energy balances, thermodynamics, fluid flow, heat and mass transfer; unit operations in food processing, including thermal processing, frying, irradiation, refrigeration, freezing, and dehydration.

356. Clinical Nutrition 2. (3:3:0) W Prerequisite: NDFS 300.
Medical nutrition therapy across disease states; continuation of NDFS 300.

361. Food Microbiology. (3:2:3) F Prerequisite: MMBio 221, 222; or equivalents.
Pathogenic and spoilage microorganisms in foods and their control. Beneficial microorganisms in food systems. Influence of the food system on growth and survival of microorganisms.

362. Food Commodity Processing. (2:1:3) W Prerequisite: Phscs 105, MMBio 221, 222, Chem 106, 107.
Characteristics of raw food material; principles of food preservation and food processing techniques; packaging materials and methods; sanitation and water and waste management.

374. Food Production Management. (2:2:0) F Prerequisite: NDFS 200, 250, 251.
Managing processes and techniques of quantity food production in commercial and institutional food systems.

375. Food Production Management Laboratory. (2:0:8) F, W Prerequisite: NDFS 374 or concurrent enrollment.

380. International Nutrition and Health. (3:3:0) W even yr. Prerequisite: NDFS 200 or instructor's consent.
Humanitarian aid, disaster and famine relief, food fortification and feeding programs, preventing nutrient deficiencies and disease, nutritional assessment, education interventions, sanitation, food storage and preparation.

390R. Special Topics in Food Science and Nutrition. (1–3:Arr.:0 ea.)
Topics vary.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Off-campus work experience sponsored by industrial, government, or academic institutions.

400. Community Nutrition. (3:3:4) F Prerequisite: NDFS 300 or 305 or instructor's consent.
Public health nutrition applied to community programs.

401. Community Nutrition Fieldwork. (0.5:0:2) F Prerequisite: NDFS 300, concurrent enrollment in NDFS 400, and dietetic major status.
Experience in public health and community nutrition programs.

405. Nutrition Assessment Lab. (0.5:0:3) F on blk. Prerequisite: NDFS 300, 356.
Developing skill in anthropometric, biochemical, clinical, and dietary parameters of nutritional assessment.

424. Nutrition Through the Life Cycle. (2:2:0) W Prerequisite: NDFS 300 or 305 or instructor's consent.
Dietary recommendations for pregnancy and lactation; infant feeding; nutritional requirements, diet, and health concerns of preschoolers, school-age children, adolescents, and the elderly.

435. Nutritional Biochemistry. (4:4:0) F, W Prerequisite: NDFS 200; PDBio 305; biochemistry or equivalent.
Metabolic interrelationships among nutrients.

440. Teaching Methods in Dietetics. (3:3:0) F
Learning settings, learning theory; curriculum development and dissemination for dietetics majors.

445. Food Service Systems. (3:3:0) W Prerequisite: NDFS 374.
Input, transformation, and output in the food service system; emphasizes procurement, production, service, and sanitation.

450. Food Chemistry. (3:3:0) F Prerequisite: NDFS 250, 251.
Structure and properties of food components, including water, carbohydrates, protein, lipids, other nutrients, and food additives. Chemistry of changes occurring during processing, storage, and utilization.

458. Management in Dietetics. (3:3:0) F Prerequisite: NDFS 445.
Management cycle and theory applied to clinical and administrative dietetics.

462. Food Regulations and Quality Assurance. (2:2:0) F Prerequisite: Stat 221, NDFS 250, 251.
Federal and international food regulations and methods of assuring food quality.

464. Food Sensory Evaluation. (1:0:3) W Prerequisite: NDFS 200, 350, 355, 361, 362, 450, 462, or concurrent enrollment; concurrent enrollment in NDFS 465.
Analytical and affective methods of assessing sensory properties of food using statistical methods. Laboratory experience in sensory research and techniques. Integrative capstone course.

465. Food Product Development. (3:1:6) W Prerequisite: NDFS 200, 350, 355, 361, 362, 450, 462, or concurrent enrollment; concurrent enrollment in NDFS 464.
Integration and application of food science principles to develop new food products. Laboratory experience in food product design and development. Integrative capstone course.

466. Advanced Dietetics Practice. (3:3:0) W Prerequisite: NDFS 356, 445.
Skill development in specialized topics of medical nutrition therapy and administrative dietetics.

475. Research Methods in Dietetics. (2:2:0) W Prerequisite: concurrent enrollment in NDFS 466.
Research techniques in a variety of dietetics practice areas.

490. Professionalism Seminar. (2:2:0) W Prerequisite: senior status in dietetics program.
Issues in professional practice.

491. Internship Preparation. (1:1:0) F Prerequisite: senior status in dietetics program.
Selecting internship sites and preparing dietetic internship application packet.

492. Fieldwork in Food Science and Nutrition. (1–8:0:24) Sp, Su Prerequisite: 12–15 credit hours in nutrition, dietetics, and food science; instructor's consent.

494R. Undergraduate Research in Food Science and Nutrition. (1–3:0:9 ea.) F, W Prerequisite: instructor's and department chair's consent; 14 hours of nutrition, dietetics, and food science courses.

Applying the scientific method (literature search, hypothesis formulation, data gathering, and analysis) to conduct original research under direction of faculty advisor.

500-Level Graduate Courses (available to advanced undergraduates)

520R. Supervised Practice Experience. (2–4:Arr.:Arr. ea.) F, W, Sp Prerequisite: acceptance into dietetic internship.

Supervised practice experience in clinical, management, and community dietetics settings.

531. Advanced Human Nutrition 1. (3:3:0) F Prerequisite: NDFS 435 or equivalent.

Nutritional status and scientific basis for dietary recommendations for carbohydrates, lipids, protein, and energy.

532. Advanced Human Nutrition 2. (3:3:0) W Prerequisite: NDFS 435 or equivalent.

Nutritional status and scientific basis for dietary recommendations for vitamins, minerals, and water.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Nutrition, Dietetics, and Food Science Faculty

Professors

Christensen, Merrill J. (1982) BS, Brigham Young U., 1977; PhD, Massachusetts Inst. of Technology, 1982.

Huber, Clayton S. (1976) BS, MS, Utah State U., 1962, 1963; PhD, Purdue U., 1968.

Johnston, N. Paul (1971) BA, Brigham Young U., 1966; MS, Oregon State U., 1967; MBA, U. of Utah, 1969; PhD, Oregon State U., 1971.

Rowe, Mark J. (1987) BS, PhD, Brigham Young U., 1968, 1972.

Associate Professors

Brown, Lora Beth (1983) BS, Iowa State U., 1965; MS, Cornell U., 1967; EdD, Brigham Young U., 1982.

Franz, Kay B. (1968) BS, U. of California, Berkeley, 1958; MS, Brigham Young U., 1968; PhD, U. of California, Berkeley, 1978.

Nyland, Nora K. (1982) BS, MS, Brigham Young U., 1974, 1981; PhD, Kansas State U., 1989.

Ogden, Lynn V. (1984) BA, MS, Utah State U., 1966, 1967; PhD, U. of Minnesota, 1973.

Pike, Oscar A. (1986) BS, MS, Brigham Young U., 1980, 1982; PhD, Purdue U., 1986.

Associate Teaching Professor

McGuire, Diana L. (1988) BS, MS, Brigham Young U., 1974, 1976.

Assistant Professors

Davidson, Robert T. (2003) BS, MS, Utah State U., 1992, 1994; PhD, U. of Wisconsin, Madison, 1998.

Steele, Frost M. (1996) BS, MS, Brigham Young U., 1985, 1987; PhD, Purdue U., 1990.

Assistant Teaching Professor

Fullmer, Susan (1997) BA, MS, U. of Utah, 1986, 1989.

Instructor

Lemon, Alison K. (2002) BS, MS, Utah State U., 1993, 1996.

Part-Time Instructor

Duncan, Julie A. (1999) BS, Brigham Young U., 1993; MPH, U. of Utah, 1998.

Part-Time Associate Lecturer

Mitchell, Ana W. (1996) BS, MS, Brigham Young U., 1993, 1996.

Scientist

Hawkins, Ernest W. (1976) BS, MS, Brigham Young U., 1978, 1984; PhD, U. of Wyoming, 1988.

Adjunct Faculty

Austin, Eliason, Hawkes, Heald, Heap, McClellan, Metos, Nielsen, Radford, Robson, Scott, Vincent, Ware.

Emeriti

Bates, Winifred W. (1977) BS, Utah State U., 1944; MJ, U. of California, Berkeley, 1965.

Call, Ara O. (1965) BS, Iowa State U. of Science and Technology, 1933; MS, U. of Wisconsin, Madison, 1944.

Hill, John M. (1971) BA, PhD, Rice U., 1961, 1965.

Johnson, John Hal (1969) BS, MS, Brigham Young U., 1955, 1957; PhD, Ohio State U., 1963.

Turner, Lavell G. W. (1963) BS, Brigham Young U., 1954; MS, U. of Wisconsin, Madison, 1959.

Organizational Behavior

See Organizational Leadership and Strategy in Marriott School of Management section of this catalog.

Philosophy

Dennis F. Rasmussen, Chair
3196 JKHB, (801) 422-2721

College of Humanities Advisement Center
3078 JKHB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Philosophy are open enrollment.

The Discipline

From its first appearance in ancient Greece down to the present, philosophy has sought to understand the world and the place of human beings within it. As it frames ideas by means of which to clarify and explain experience, philosophy discloses its faith in the ultimate lucidity of things. Philosophy's respect for the authority of intelligence fosters a preference for persuasion that is fundamental to personal growth and democratic society.

Students who study philosophy will find that it not only provides insight into life's fundamental concerns, it also helps them develop their capacity for clear thinking and perceptive judgment. Such competence will serve them well as they pursue further education or begin their careers.

Career Opportunities

Philosophy offers excellent career preparation, but not in the way that, say, accounting does. The value of a major in philosophy resides in the intellectual development it promotes. It lays a foundation on which more specialized study may build. In various standardized tests, philosophy majors tend to do extremely well on the verbal aptitude and on the analytic thinking sections. So philosophy can prepare a student for any type of work that requires highly developed reading and writing skills. Students who elect to major in philosophy should look beyond their bachelor's degree right from the start. For example, philosophy is an excellent background for the study of law or medicine. Those who intend to enter graduate school will need to start early on the foreign-language requirement.

General Information

The Department of Philosophy strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Philosophy
Minors	Philosophy
	Logic

Students should see their college advisement center for help or information concerning the undergraduate programs.

BA Philosophy (42 hours*)

Major Requirements

1. Complete the following sources and methods courses:
   Phil 201, 202, 205, 305, 311.
2. Complete two of the following historical periods courses (should not be in the same period):
   Phil 320R, 330R, 340R, 350R.
3. Complete one of the following values and conduct courses:
   Phil 213, 214, 215, 218, 413, 414, 416.
4. Complete two of the following knowledge and reality courses:
   Phil 405, 415, 420, 421, 422, 423.
5. Complete 12 additional hours (excluding 499R). Students must have a total of 27 300-level or above hours (with no more than 3 hours of 449R).

*Hours include courses that may fulfill GE or university requirements.

Minor Philosophy (18 hours*)

Minor Requirements

1. Complete the following:
   Phil 201, 202, 205.
2. Complete three other philosophy courses.

*Hours include courses that may fulfill GE or university requirements.

Minor Logic (15 hours*)

Minor Requirements

1. Complete the following:
   Phil 205, 305, 405.
2. Complete two other approved courses.
3. No more than 9 hours may double count for the philosophy major and the logic minor.

*Hours include courses that may fulfill GE or university requirements.

Philosophy (Phil)

Undergraduate Courses

105. Reasoning and Writing. (3:3:0) Honors also.
Informal grammar, logic, and rhetoric as tools for reading and writing. Library research. Recommended for philosophy majors and minors. Fulfills GE First-Year Writing requirement. No course challenges accepted.

110. Introduction to Philosophy. (3:3:0) Honors and Independent Study also.
Articulating, assessing, and defending fundamental positions on topics such as reason, knowledge, science, education, ethics, politics, and religion.

201. History of Philosophy 1. (3:3:0) Honors also.
Western civilization from Greek antiquity to Renaissance, primarily from perspective of philosophy; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

202. History of Philosophy 2. (3:3:0) Honors also. Prerequisite: Phil 201.
Western civilization from Renaissance to present, primarily from perspective of philosophy; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

205. Deductive Logic. (3:3:0) F, W, Sp, Su Independent Study also.
History and use of syllogistic and propositional logic; evaluating arguments with Venn diagrams, truth tables, and Copi-style proofs and proof strategies.

210. Science and Civilization 1. (3:3:0) Honors also.
History of Civilization from Greek antiquity to scientific revolution; methods in early science and their philosophical significance; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

211. Science and Civilization 2. (3:3:0) Honors also. Prerequisite: Phil 210.
History of Civilization from scientific revolution to present; concepts and methods in modern science and their philosophical significance; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

213. Introduction to Ethics. (3:3:0)
Nature and justification of moral standards, beliefs, and decisions.

214. Introduction to the Philosophy of Art. (3:3:0)
The experience of beauty in nature, in literature, and in the arts.

215. Introduction to the Philosophy of Religion. (3:3:0)
Existence and nature of God, God's foreknowledge and man's free will, faith, immortality, and religious experience and language.

218. Science and Religion. (3:3:0) Prerequisite: one philosophy course.
Epistemological and metaphysical similarities and differences undergirding historical problems in science and religion. Nature and effects of past reconciliations; possibility and desirability of current reconciliations.

305. Predicate Logic. (3:3:0) W, Su Prerequisite: Phil 205.
History and use of predicate logic; evaluating arguments with counterexamples and proofs; informal mathematical proofs. Fulfills GE Language/Mathematics requirement.

311. Philosophical Writing. (3:3:0) F, W Honors also. Prerequisite: Phil 105 or 205.
Writing philosophical papers about philosophical texts or problems. Research methods in philosophy. Library research paper. Fulfills GE Advanced Writing requirement. No course challenges accepted.

320R. Studies in Ancient Philosophy. (3:3:0 ea,) Prerequisite: Phil 201.
Selected figures or topics.

330R. Studies in Medieval Philosophy. (3:3:0 ea.) Prerequisite: Phil 201.
Selected figures or topics.

340R. Studies in Modern Philosophy. (3:3:0 ea.) Prerequisite: Phil 202.
Selected figures or topics.

350R. Studies in Contemporary Philosophy. (3:3:0 ea.) Prerequisite: one philosophy course.
Selected figures or topics.

405. Metalogic. (3:3:0) Alt. yr. Prerequisite: Phil 305.
Completeness and undecidability of predicate logic; incompleteness of arithmetic and set theory; treatment of related philosophical topics and of nonclassical topics as time permits.

413. Ethics. (3:3:0) Alt. yr. Prerequisite: one philosophy course.
Selected figures or problems

414. Philosophy of Art. (3:3:0) Alt. yr. Prerequisite: one philosophy course.
Selected figures or problems in aesthetics.

415. Philosophy of Religion. (3:3:0) Alt. yr. Prerequisite: one philosophy course.
Selected figures or problems.

416. Philosophy of Law. (3:3:0) Prerequisite: one philosophy course.
The relation between natural and enacted law; theories of punishment; utilitarian and nonutilitarian theories of law; liberty.

420. Philosophy of Language. (3:3:0) Prerequisite: one philosophy course.
Meaning and reference, synonymy, metaphor, exemplification, translation; linguistic, artistic, and perceptual symbol systems.

421. Metaphysics. (3:3:0) Prerequisite: one philosophy course.
Basic categories of being: appearance and reality, law, causality, space, time, eternity, deity.

422. Epistemology. (3:3:0) Prerequisite: one philosophy course.
Meaning, limits, and justification of knowledge.

423. (Phil 423–Hist 311-Phscs 314) History and Philosophy of Science. (3:3:0) Honors also. Prerequisite: PhyS 100 or instructor's consent.

Scientific explanation, concepts, and models. Philosophical assumptions and criteria for theory selection, as exemplified by historical development of basic ideas in science.

449R. Philosophical Lecture Series. (1:1:0 ea.) F, W

Lectures on philosophical topics by faculty and advanced students.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.) Prerequisite: instructor's consent.

Selected topic or figure in philosophy.

500-Level Graduate Course (available to advanced undergraduates)

501R. Graduate Seminar. (2–5:5:0 ea.) Prerequisite: instructor's consent.

Selected topic, figure, or movement in philosophy, as announced in current class schedule.

Philosophy Faculty

Professors

Carter, K. Codell (1973) BS, MA, U. of Utah, 1963, 1964; PhD, Cornell U., 1968.

Faulconer, James E. (1981) BA, Brigham Young U., 1972; MA, PhD, Pennsylvania State U., 1975, 1977.

Graham, Daniel W. (1986) AB, Davidson Coll., 1970; MA, Brigham Young U., 1975; PhD, U. of Texas, Austin, 1980.

Packard, Dennis Jay (1974) AA, Miracosta Coll., 1966; BA, PhD, Stanford U., 1968, 1974.

Paulsen, David L. (1973) BS, Brigham Young U., 1961; JD, U. of Chicago, 1964; PhD, U. of Michigan, 1975.

Rasmussen, Dennis F. (1970) BS, U. of Utah, 1966; MPhil, PhD, Yale U., 1968, 1970.

Warner, C. Terry (1967) BA, Brigham Young U., 1963; MA, PhD, Yale U., 1965, 1967.

Associate Professors

Anderson, Travis T. (1991) BFA, BA, Brigham Young U., 1985, 1985; MA, PhD, U. of Loyola, Chicago, 1989, 1991.

Grandy, David A. (1999) BS, Brigham Young U., 1973; MA, PhD, Indiana U., 1990, 1994.

Siebach, James L. (1994) BA, Brigham Young U., 1982; PhD, U. of Texas, 1994.

Wrathall, Mark A. (1996) BA, Brigham Young U., 1988; MA, Boston Coll., 1991; JD, Harvard U., 1991; PhD, U. of California, Berkeley, 1996.

Assistant Professor

Hedengren, Paul C. (1981) BA, MA, Brown U., 1971, 1973; PhD, U. of Toronto, Canada, 1983.

Emeriti

Madsen, Truman G. (1957) BS, MS, U. of Utah, 1951, 1952; MA, PhD, Harvard U., 1957, 1960.

Nielsen, Fred Kent (1956) BA, MA, Harvard U., 1954, 1955.

Riddle, Chauncey C. (1952) BS, Brigham Young U., 1947; MA, PhD, Columbia U., 1951, 1958.

Yarn, David H. (1950) BA, Brigham Young U., 1946; MA, EdD, Columbia U., 1949, 1958.

Physical Education

Ruel Barker, Chair
221 RB, (801) 422-2466

College of Health and Human Performance Advisement Center
203 RB, (801) 422-3638

Admission to Degree Program

Some of the degree programs in the Department of Physical Education carry special enrollment limitations. Please see the college advisement center for specific details.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Physical Education
- Emphases:
  - Athletic Training
  - Exercise Science

Fitness and Wellness Management
Public School Teaching (K–12)

Minors Coaching and Teaching Physical Education
Elementary Physical Education

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Physical Education
PhD Curriculum Instruction in Physical Education
PhD Exercise Science/Wellness

For more information see the BYU 2003–2004 Graduate Catalog.

BS Physical Education: Athletic Training Emphasis

(74 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The Discipline

The study of athletic training appeals to those who would like to work in a field that combines an athletic setting with health and fitness care. A student in athletic training will learn to apply knowledge of human anatomy, exercise physiology, conditioning, nutrition, and therapy in the prevention, immediate care, and rehabilitation of athletic injuries.

Career Opportunities

Career possibilities include working with athletic teams at all levels of competition or in a sports medicine clinical setting or other allied health facilities or in a corporate/industrial setting. NATA certification is required, and an advanced degree is recommended.

Major Requirements

1. Maintain a high personal fitness level and follow healthy lifestyle habits.
2. Complete a minimum of 45 major hours in residence at BYU.
3. Apply for acceptance into the athletic training program during semester of enrollment in PE 320. See the program director or PE 320 instructor for an application packet. Admission to the program requires the candidate to meet the following criteria:
   a. Complete PDBio 220, 305, PE 320, 321. (PE 320, 321 must be completed at BYU.)
   b. Have a physical examination within six months of application.
   c. Submit two letters of recommendation.
   d. Interview with the athletic training staff.
   e. Complete 30 hours of clinical observation or experience in a college or high school athletic training setting.
   f. Have a minimum GPA of 3.0.

   Admission to the program is limited, competitive, and dependent upon meeting the above criteria. The athletic training staff will make final selection of candidates following the interview. Students must join NATA and pass the NATABOC examination to certify as an athletic trainer.
4. Complete the senior interview.
5. Maintain CPR certification.
6. Meet the technical standards associated with the athletic training education program.
7. Complete the following:
   Hlth 320.
   MMBio 221.
   NDFS 310.
   PDBio 220, 305.
   PE 202, 302, 320, 321, 361, 362, 363, 367, 400, 414, 415, 416, 417, 418, 419, 423, 460, 468, 501.
   Psych 111.
   Stat 221.
8. Complete 2 hours of the following:
   PE 497R (to be taken for two consecutive semesters prior to graduation).
9. Complete 8 hours of the following:
   PE 496R (clinical internship; must be completed over a two-calendar-year period).

*Hours include courses that may fulfill GE or university requirements.

BS Physical Education: Exercise Science Emphasis

(60–62.5 hours*)

The Discipline

Designed to provide the basics from which the student can pursue specialized training in physical therapy, occupational therapy, medicine, physician assistant, chiropractic, and other health-care professions, the exercise science emphasis explores the intriguing relationship between exercise and the functioning of the human body. The basic concepts of human anatomy, physiology, biomechanics, motor learning, chemistry, physics, and nutrition are mastered to help understand this relationship. The impact that movement and exercise have on the human organism is almost interminable, making study of this discipline enthralling.

Students considering medicine as a profession may want to select this major. While providing most requisite courses for medical school acceptance, it also conveys a healthy-lifestyle, preventive-medicine health care perspective.

Career Opportunities

The exercise science emphasis provides excellent preparation for students interested in graduate work in exercise physiology (MS, PhD) or those desiring to pursue training in medicine, physical therapy, cardiac rehabilitation, podiatry, chiropractic, and other health care professions. Graduates with this major may also find opportunities in community, corporate, or hospital wellness centers and health promotion programs. Positions requiring only a bachelor's degree may be difficult to find.

Major Requirements

1. Maintain a high personal fitness level and follow healthy lifestyle habits.
2. Complete a minimum of 15 major hours in residence at BYU.
3. Complete senior exit interview.
4. Complete the following:
   NDFS 100, 310.
   PE 302, 362, 363, 367, 400, 460.
   PDBio 220, 305.
   Stat 221.
5. Complete one course from the following:
   Chem 101, 105.
6. Complete one course from the following:
   Chem 152, 351.
7. Complete one course from the following:
   Chem 281, 481.
8. Complete one course from the following:
   Math 112, 119.

9. Complete one of the following options:
   Either Phscs 105, 107
   Or Phscs 121.
10. Complete 15 hours from the following:
    Biol 229, 240, 329, 339, 340, 360, 439.
    Chem 106, 107, 352, 353, 468, 481.
    CS 142.
    Hlth 365, 455, 461.
    InBio 370.
    MMBio 221, 222.
    PDBio 225, 320, 365, 484, 561, 565.
    PE 202, 320, 321, 361, 368, 399R, 451, 468, 470, 497R, 501.
    Phscs 106, 108.
    Psych 111, 220, 342.
    Soc 111, 112.

Note: Watch prerequisites for the elective courses.

Note to Premed Students: Some medical schools require select classes not required by BYU. For more information contact the Health Professions Advisement Office, 380 WIDB, (801) 422-3044. Contact potential schools of choice for a complete list of entrance requirements.

*Hours include courses that may fulfill GE or university requirements.

BS Physical Education: Fitness and Wellness Emphasis (60.5 hours*)

The Discipline

Fitness and wellness management is a departure from the typical U.S. medical model in that the focus is on helping individuals achieve optimal health and fitness, rather than on discovering and treating disease. Recent research findings, along with rising health-care costs, have spurred an interest in keeping people healthy to improve their quality of life and also to avoid unnecessary medical expenses.

Depending on electives completed, there are several excellent graduate school options to pursue. Earning a master's degree in exercise science/physical education, for example, can give the added knowledge and experience needed to direct a private, commercial, corporate, or clinical health/fitness program. Other graduate opportunities include a master's in public health (MPH), business administration (MBA), recreational therapy (MS), or nutrition, dietetics, and food science (MS), to name a few.

Career Opportunities

Personal fitness professionals find employment primarily in commercial or community fitness centers but may also work in hospital wellness programs or corporate health-promotion programs. Job responsibilities typically involve teaching clients how to achieve optimal wellness through effective exercise, wholesome nutrition, and successful stress-management strategies.

Major Requirements

1. Participate in regular exercise, eat a healthful diet, and follow other positive lifestyle habits that lead to an optimal level of health and well-being.
2. Complete a minimum of 15 major hours in residence at BYU.
3. Complete the senior interview.
4. Complete the following:
   Hlth 320, 365.
   NDFS 100, 201.
   PDBio 220, 305.
   PE 363, 367, 368, 399R.
5. Complete 9–19 hours from the following:
   Hlth 455, 460, 461.
   PE 205, 365, 451, 468.
6. Complete 10–13 hours from the following:
   Hlth 370, 383, 410, 420, 450, 466, 478.
   NDFS 310.
   PE 202, 302, 349.
7. Complete up to 13 hours from the following:
   Acc 200.
   BusM 300, 340, 371R, 372.
   CPSE 546.
   Dance 336.
   IP&T 286.
   NDFS 200, 400.
   OrgB 320.
   PE 235, 239, 320, 321, 361, 362, 400, 460.
   Psych 111.
   Stat 221.
   TMA 150.

*Hours include courses that may fulfill GE or university requirements.

BS Physical Education: Public School Teaching (K–12) Emphasis (81.5–83.5 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or department office for information regarding requirements for admission to this emphasis.

The Discipline

Students preparing to teach and/or coach physical education will have a variety of experiences that will enhance proficiency in the knowledge and skills requisite to working in the contemporary school setting. Majors learn to perform a variety of sport, fitness, and dance activities personally. After becoming proficient, students take courses and have practical experiences in teaching and coaching children, adolescents, and adults. The discipline is interesting and rewarding, and those in a teaching/coaching career help others pursue and practice healthy lifestyle habits.

Career Opportunities

Graduates seek teaching and physical education/coaching careers in elementary and secondary education settings. With an advanced degree, teaching and coaching positions at institutions of higher learning are available.

It is recommended that students desiring to be optimally employable in secondary schools complete an approved teaching minor and American Coaching Effectiveness Program (ACEP) coaching certification.

Major Requirements

1. Prior to beginning course work in the major, students must apply for admittance into the Flight Program. The program requires that all students take the major courses together as a cohort group. See the flight advisor during January of the sophomore year (221 RB).
2. Maintain a high personal fitness level and follow healthy lifestyle habits.
3. Complete a minimum of 15 major hours in residence at BYU.
4. Complete the senior exit interview.
5. A teaching minor is not required for licensure. However, it is strongly recommended.

6. Complete the following required prerequisite and general education courses:
   HEPE 129.
   MFHD 210.
   PDBio 220, 305.
7. Complete the following:
   PE 206, 230, 231, 233, 239, 300, 302, 320, 321, 352, 360, 361, 362, 366, 367, 374, 377, 380, 399R, 430, 461.
   Dance 356.
8. Complete one course from the following:
   PE 330R, 335, 341, 342, 344, 345, 346, 347.
9. Complete one course from the following:
   PE 171, 172, 276, 277.

   Note: PE 276 or 277 is preferred.
10. If PE 171 or 172 is taken in item 9 above, complete one course from the following:
    PE 125, 136, 137, 146, 147, 155 (or other approved course).
11. Complete the Professional Education Component (23–24 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

Recommended Course

PE 476.

*Hours include courses that may fulfill GE or university requirements.

Minor Coaching and Teaching Physical Education

(23.5–27.5 hours)

Minor Requirements

1. Complete the following:
   PE 206R, 229, 234, 235, 320, 321, 351, 364, 365, 366, 399R, 430, 450.
2. Complete one course from the following:
   PE 330R, 335, 341, 342, 344, 345, 346, 347.

Minor Elementary Physical Education (18–19 hours*)

Minor Requirements

1. Be an elementary education major.
2. Complete the following:
   Dance 326.
   Hlth 320.
   PE 169, 230, 364, 366, 375, 376, 461.
3. Complete one course from the following:
   Dance 130, 170, 171, 172, 180, 181.

*Hours include courses that may fulfill GE or university requirements.

Health/Physical Education (HEPE)

Undergraduate Course

129. Fitness and Lifestyle Management. (2:2:1)
Why a healthy lifestyle is needed and how to write individualized programs to meet these needs.

Physical Education (PE)

Undergraduate Courses

100R. Intercollegiate Athletics (Men). (0.5:2:10.5 ea.)

101R. Activities for Fitness and Weight Control. (0.5:0:2 ea.)

102R. Adapted Physical Education. (0.5:0:2 ea.) Prerequisite: medical referral.

106. Badminton, Beginning. (0.5:0:2)

111. Basketball, Beginning. (0.5:0:2)

112. Basketball, Intermediate. (0.5:0:2) Prerequisite: PE 111 or equivalent.

116. Bowling, Beginning. (0.5:0:2) Fee.

117. Bowling, Intermediate. (0.5:0:2) Fee.

120. Cycling. (0.5:0:2)
Basic knowledge and skills in cycling and bike maintenance.

121. Diving, Springboard. (0.5:0:2)

125. Flexibility. (0.5:0:2)

130. Lifetime Fitness. (0.5:0:2)
Improving health-related and/or sport-related endurance, strength, and flexibility fitness.

131. Golf, Beginning. (0.5:0:2)

132. Golf, Intermediate. (0.5:0:2) Prerequisite: PE 131 or equivalent.

133. Golf, Advanced. (0.5:0:2) Prerequisite: PE 132 or equivalent.

136. Gymnastics, Beginning. (0.5:0:2)

137. Gymnastics, Intermediate. (0.5:0:2) Prerequisite: PE 136 or equivalent.

139. Jogging. (0.5:0:2) Independent Study also.

141. Martial Arts. (0.5:0:2)

143R. Physical Training—ROTC. (0.5:0:2 ea.) For ROTC students only.

146. Racquetball, Beginning. (0.5:0:2)

147. Racquetball, Intermediate. (0.5:0:2)

150. Ice Skating. (0.5:0:2)
Developing figure and ice hockey skills. Taught off campus. Fee.

155. Self-Defense. (0.5:0:2)
Fundamental principles, skills, and techniques.

156. Soccer, Beginning. (0.5:0:2)

157. Soccer, Intermediate. (0.5:0:2) Prerequisite: PE 156 or equivalent.

161. Skiing, Beginning. (0.5:0:2)
Sections formed on basis of ability. Students responsible for following costs: bus transportation, ski equipment, lift fees. Students required to use bus transportation provided. Fee.

162. Skiing, Intermediate. (0.5:0:2)
Sections formed on basis of ability. Students responsible for following costs: bus transportation, ski equipment, lift fees. Students required to use bus transportation provided. Fee.

164. Skiing, Cross-Country. (0.5:0:2)
Students responsible for following costs: bus transportation, ski equipment. Students required to use bus transportation provided. Fee.

169. Skill Acquisition and Analysis. (0.5:0:2)
Required for elementary education majors. Meets one university physical education activity requirement.

170. Swimming for Nonswimmers. (0.5:0:2)

171. Swimming, Beginning. (0.5:0:2)

172. Swimming, Intermediate. (0.5:0:2) Independent Study also. Prerequisite: PE 171 or equivalent.

174R. Swimming for Students with Disabilities. (0.5:0:2 ea.)
Can be taken repeatedly to fulfill the university physical education activity requirement for any student with special needs.

175. Beginning Scuba Diving. (0.5:0:2)
Developing scuba diving skills. Taught off campus. Fee.

176. Advanced Scuba Diving. (0.5:0:2) Prerequisite: PE 175 or Open Water Diver Certification.
Advanced open water skills and concepts. Advanced open water certification upon successful completion. Fee.

177. Rescue Scuba. (0.5:0:2) Prerequisite: PE 176 or Advanced Open Water Diver Certification.
CPR, first aid, and diving rescue procedures and concepts. Rescue certification upon successful completion. Fee.

179. Water Aerobics. (0.5:0:2) For nonswimmers and swimmers.
Exercise workout in water emphasizing flexibility, strength, and endurance.

181. Tennis, Beginning. (0.5:0:2)

182. Tennis, Intermediate. (0.5:0:2) Prerequisite: PE 181 or equivalent.

183. Tennis, Advanced. (0.5:0:2) Prerequisite: PE 182 or equivalent.

186. Volleyball, Beginning. (0.5:0:2)

187. Volleyball, Intermediate. (0.5:0:2) Prerequisite: PE 186 or equivalent.

188. Volleyball, Advanced. (0.5:0:2) Prerequisite: PE 187 or equivalent.

191. Weight Training, Beginning. (0.5:0:2)

192. Weight Training, Intermediate. (0.5:0:2) Prerequisite: PE 191 or equivalent.
Theory and technique of maximal strength development, emphasizing "power" and "Olympic" lifts.

196. Wrestling, Beginning. (0.5:0:2)

200R. Intercollegiate Athletics (Women). (0.5:0:3 ea.)

201R. Extramural Sports. (0.5:0:2 ea.)

202. Introduction to Allied Health Professions. (1:1:0)
Allied fields of athletic training, exercise physiology, health promotion, and physical therapy. Survey and history of the allied fields and their relation to other health-care professions.

203. Performance Psychology. (1:1:1)
Relaxation and imagery for athletes and performing artists.

205. Fitness-Training Techniques. (2:1:3) Prerequisite: for physical education majors only.
Conditioning concepts and techniques for developing flexibility, strength, and speed.

206. Officiating Team Sports. (1:1:0)
Techniques, rules, and problems related to officiating, with particular attention to relationship between coach and official.

229. Physical Education Pedagogy. (2:2:0)
Sport pedagogy for students *minoring* in physical education/coaching.

230. Sports and Activities 1. (2:0:6) Prerequisite: acceptance into flight program.
Developing motor skills and acquiring teaching materials for drills, lead-up activities, and teaching techniques in activities that include soccer, flag football, track and field, volleyball, and fitness.

231. Sport and Activities 2. (2:0:6) Prerequisite: acceptance into flight program.
Developing motor skills and acquiring teaching materials for drills, lead-up activities, and teaching techniques in activities that include basketball, tennis, golf, and softball.

233. Lifetime and Leisure Activities. (1:0:3) Prerequisite: acceptance into flight program.
Exposure to and development of skills in contemporary, noncompetitive, lifelong leisure activities.

234. Team Sport Fundamentals. (1:0:4) For *minors* in physical education/coaching only. Prerequisite: PE 229.
Skill and pedagogy development in soccer and volleyball.

235. Sport Fitness Techniques. (1:0:4) For *minors* in physical education/coaching only. Prerequisite: PE 229.
Skill and pedagogy in flexibility and weight training.

239. Weight Training: Skills and Teaching Techniques. (0.5:0:2)

276. Water Safety Instructor Training. (2:1:3) Prerequisite: ARC Swimmer–level competency.
Leads to American Red Cross WSI certification. Swimming teaching methods that include teaching swimming to special needs students.

277. Techniques of Lifeguarding. (2:1:3) Prerequisite: swim competency test (given first day of class).
First-aid and lifeguard skills training, including instruction in CPR, and American Red Cross certification for lifeguard training.

300. Historical and Sociological Foundations of Physical Education. (2:2:0)
Historical and sociological foundations of physical education and sport.

302. Philosophical and Ethical Issues in Physical Education. (1:1:0)
Philosophical and ethical issues common to physical education majors. Concept of mind, body, spirit.

320. Basic Athletic Training. (3:3:0) Prerequisite: PDBio 220; concurrent enrollment in PE 321.
Recognition, evaluation, and care of athletic injuries. Techniques in taping, preventing, and rehabilitating injuries.

321. Basic Athletic Training Lab. (0.5:0:0.5) Prerequisite: concurrent enrollment in PE 320. Fee.

330R. Coaching Selected Sports. (2:1:2 ea.) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching tennis or golf.

335. Coaching Competitive Swimming. (2:1:2) Prerequisite: intermediate swimming skills.
Analysis of strokes, starts, turns, and legalities of each.

341. Coaching Basketball. (2:2:1) Prerequisite: PE 230 or equivalent.

342. Coaching Track and Field. (2:1:2) Prerequisite: PE 242R or equivalent.

344. Coaching Football. (2:2:1)

345. Coaching Volleyball. (2:2:1) Prerequisite: PE 230 or equivalent.

346. Coaching Baseball and Softball. (2:2:1) Prerequisite: PE 230 or equivalent.

347. Coaching Soccer. (2:1:2) Prerequisite: PE 156 or equivalent.
Methodology, skills, and strategies of coaching soccer.

349. Body, Mind, Spirit. (3:3:0) Honors also.
Sacredness of the body and its meaningfulness to the whole being. Comparative approach utilizing ideas from the restored gospel and Western and Eastern philosophy (nature of being).

351. Administration of Physical Education and Athletics. (2:2:0) For teaching and coaching minors. Independent Study also.
Management styles and techniques for physical education and athletic programs; policies concerning eligibility, contest management, safety, facilities, and legal concerns.

352. Legal and Administrative Aspects of Physical Education and Sport. (3:3:0) Prerequisite: acceptance into flight program.
Principles of physical education and intramural management including facilities, equipment, fiscal matters, personnel, public relations, and program administration. Legal considerations of physical education and sport programs, including constitutional rights, gender, liability, and risk management.

360. Curriculum and Assessment of Learning in Physical Education. (3:3:0) Prerequisite: acceptance into Flight Program.
Curriculum development to meet national physical education standards. Assessment of psychomotor, cognitive, and affective learning, including elementary statistical testing.

361. Introduction to Motor Learning. (3:2:2)
Motor and cognitive factors influencing acquisition of motor skills.

362. Kinesiology and Biomechanics. (3:3:0) Prerequisite: PDBio 220, Math 110 or higher. Recommended: Phscs 105 or 121.

363. Exercise Physiology. (3:3:0) Prerequisite: PDBio 305 or 362; concurrent enrollment in PE 367.

364. Scientific Bases of Sport 1: Motor Learning. (2:2:0)
Motor learning principles for physical education/coaching minor.

365. Scientific Bases of Sport 2: Kinesiology. (2:2:0)
Kinesiology and biomechanics for physical education/coaching minor.

366. Scientific Bases of Sport 3: Exercise Physiology. (2:2:0)
Physiology of activity for physical education/coaching minor.

367. Exercise Physiology Lab. (0.5:0:0.5) Prerequisite: concurrent enrollment in PE 363.

368. Assessment in Fitness and Wellness. (3:3:0) Prerequisite: PE 363, 367.

374. Fundamental Skills and Teaching Methods for Elementary Physical Education. (3:2:2) Prerequisite: acceptance into flight program.
Identifying and demonstrating fundamental skills; identifying immature and mature movement patterns; selecting developmentally appropriate activities; appropriate management techniques.

375. Physical Education for Elementary School Teachers. (2:1:3) Prerequisite: PE 169.

376. Practical Experience in Teaching Elementary School Physical Education. (2:0:4) Prerequisite: PE 375.

377. Secondary Practicum. (3:1:3) Prerequisite: acceptance into flight program.
Written and practical teaching assignments designed to help prospective teachers plan, conduct, and evaluate lessons and unit plans appropriate to adolescent students.

379. Physical Education for Special Education Teachers. (2:2:2)

380. Use of Technology in Physical Education Teaching. (2:2:0) Prerequisite: acceptance into Flight Program.
Applying computer technology: Web page design and software focusing on skill, fitness grading, digital video editing, and presentation. Meets secondary education technology requirements.

399R. Academic Internship. (1–9:0:Arr. ea.) Prerequisite: advisor's consent; PE 202 for health promotion majors.
On-the-job experience for physical education majors and coaching and physical education minors.

400. Functional Anatomy and Kinesiology. (4:3:2) Prerequisite: PE 362 or equivalent.
Advanced examination of structure and function of skeletal, articular, muscular, and peripheral nervous systems with clinical applications; cadaver lab included.

414. Advanced Athletic-Training Lab. (1:0:2) Prerequisite: PE 320, 321; admission to athletic-training program.
Advanced athletic-training skills, including taping, bracing and splinting, custom-fitted equipment, massage and stretching techniques, and emergency splinting and transport.

415. Therapeutic Modalities in Treatment of Athletic Injuries. (3:2:2) Prerequisite: PE 320, 321; admission to athletic-training program.
Hydrotherapy, massage, traction, radiant energy, heat, cold, and electrotherapy.

416. Injury Evaluation: Lower Extremities. (3:3:0) Prerequisite: PE 320, 321, 415; admission to athletic-training program.
Basic principles of injury evaluation; evaluation techniques specific to lower-extremity injuries.

417. Injury Evaluation: Upper Extremity and Trunk. (3:3:0) Prerequisite: PE 320, 321, 415, 416; admission to athletic-training program.
Injury evaluation techniques specific to the upper extremities and trunk.

418. Rehabilitation of Athletic Injuries. (3:3:0) Prerequisite: PE 320, 321, 415; 417 or concurrent enrollment.
Basic principles of rehabilitation; protocols for rehabilitation of athletic injuries.

419. Medical Issues in Athletic Training. (1:1:0) Prerequisite: PE 320, 321, 415; 416, 417, or concurrent enrollment.
Discussion of current medical issues in athletic training, with guest lectures by medical specialists.

423. Administration of Athletic Training Programs. (2:2:0) Prerequisite: acceptance into athletic training program; PE 320, 321, 415.
Management and administration of athletic training facilities and staff members.

430. Theory of Coaching. (2:2:2)

450. Psychology of Sport. (2:2:0)

451. Fitness Instructor Workshop. (3:3:0) Prerequisite: senior status.
Review of personal fitness trainer curriculum; preparation for American College of Sports Medicine certification.

460. Orthopaedic Impairments and Therapeutic Exercise. (3:3:0) Prerequisite: PE 362; PDBio 220 or equivalent.
Fundamentals of body mechanics and therapeutic exercise, coupled with kinesiological principles for detection and correction of basic neuromusculoskeletal anomalies.

461. Adapted Physical Education for Teaching Majors. (3:2:1) Prerequisite: acceptance into flight program.
Program, legal mandates, management techniques, and assessing and identifying special needs students.

468. Problems in Exercise Prescription. (2:2:0) Prerequisite: PE 363.
Applying scientific principles to problems in conditioning.

470. Functional Neuroanatomy. (3:3:0) Prerequisite: PDBio 220, PE 400.
Function, assessment, and rehabilitation of sensory and motor systems.

476. Elementary Student Teaching in Physical Education. (3:1:5) Prerequisite: completion of courses in public school teaching major and instructor's consent.

496R. Academic Internship: Practicum. (1–8:0:Arr. ea.) Prerequisite: PE 320, 420, and instructor's consent.
Academic and practical application of skills for athletic trainers.

497R. Undergraduate Research and Study. (1–4:0:Arr. ea.)
Individual research and study in any area of physical education.

500-Level Graduate Courses (available to advanced undergraduates)

501. Sports Medicine Pharmacology. (2:2:0) Prerequisite: PE 320, 321; or equivalents.

Pharmacological information for students in a variety of sports medicine/allied health professions. Meets educational JRC-AT competencies.

560. Orthopaedic Pathomechanics. (2:2:1) Prerequisite: PE 460 or equivalent.

Advanced analysis of neuromusculoskeletal deformities and/or injury. Therapeutic exercise and the use of orthoses.

582. Physical Education for Special Populations. (2:2:0) Prerequisite: baccalaureate degree in physical education.

Theoretical and practical aspects of teaching individuals with disabilities.

586R. Workshop in Fitness and Sport. (1–4:Arr.:Arr. ea.) Prerequisite: undergraduate major in physical education or equivalent.

599R. Academic Internship: Practicum. (1–9:0:Arr. ea.)

Field experience for physical education students; 50 hours of volunteer service in approved organization required per credit hour.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Physical Education Faculty

Professors

Aldana, Steve (1994) BS, MS, Brigham Young U., 1986, 1988; PhD, Arizona State U., 1991.

Allsen, Philip Edmond (1966) BS, Ricks Coll., 1955; MS, Brigham Young U., 1960; EdD, U. of Utah, 1965.

Barker, Ruel M. (1971) BS, Utah State U., 1961; MS, EdD, Brigham Young U., 1964, 1971.

Conlee, Robert K. (1977) BS, MS, Brigham Young U., 1969, 1970; PhD, U. of Iowa, 1975.

Draper, David (1992) BS, Utah State U., 1982; MA, Brigham Young U., 1984; EdD, Northern Illinois U., 1988.

Knight, Kenneth L. (1996) BS, BS, Weber State U., 1969, 1973; PhD, U. of Missouri, 1977.

Lockhart, Barbara D. (1991) BS, MA, Michigan State U., 1964, 1967; EdD, Brigham Young U., 1971.

McGown, Carl M. (1972) BS, MS, Brigham Young U., 1963, 1964; PhD, U. of Oregon, 1971.

Tucker, Larry (1988) BS, MS, Brigham Young U., 1978, 1979; PhD, Southern Illinois U., 1981.

Teaching Professionals

Clarke, Mark S. (1982) BS, U. of Arizona, 1963; MS, EdD, Brigham Young U., 1964, 1971.

Olson, Mel J. (1970) BS, MA, EdD, Brigham Young U., 1970, 1973, 1980.

Stiggins, Charles (1978) BS, MS, Brigham Young U., 1977, 1978.

Athletic Professionals

Cleveland, Steven C. (1997) BA, U. of California, Irvine, 1976; MA, Fresno Pacific U., 1983.

Crowton, Gary (2000) BS, Brigham Young U., 1983.

Hale, Q. Val (1982) BA, MA, Brigham Young U., 1981, 1987.

Michaelis, Elaine (1960) BS, MS, Brigham Young U., 1960, 1962.

Poole, R. Craig (1980) BS, MS, Utah State U., 1964, 1967; EdD, U. of Utah, 1970.

Valentine, Ann (1966) BS, Slippery Rock State Coll., 1955; MS, Pennsylvania State U., 1961.

Associate Professors

George, Jim (1995) BS, MA, Brigham Young U., 1984, 1986; PhD, Arizona State U., 1995.

Hall, Larry Thomas (1978) BS, MS, Brigham Young U., 1970, 1971; PhD, U. of Utah, 1976.

Kaiser, David A. (2000) BS, Brigham Young U., 1984; MS, PhD, U. of Florida, 1986, 1994.

Myrer, William (1990) BS, U. of Calgary, Canada, 1974; MA, U. of Windsor, Canada, 1977; PhD, Brigham Young U., 1983.

Schulthies, Shane S. (1991) BS, Brigham Young U., 1987; MS, Texas Woman's U., 1989; PhD, Brigham Young U., 1991.

Vehrs, Pat Roy (2000) BS, MS, Northern Illinois U., 1984, 1986; PhD, Brigham Young U., 1991.

Wilkinson, Carol (1995) BEd, Durham U., England, 1976; MS, EdD, Brigham Young U., 1981, 1983.

Zanandrea, Maria (1995) BA, MS, EdD, Brigham Young U., 1983, 1985, 1992.

Associate Teaching Professionals

Chamberlain, Diane (1969) BA, California State U., Los Angeles, 1966; MS, Brigham Young U., 1969; EdD, U. of Utah, 1984.

Noel, Robert Edward (1979) BS, Brigham Young U., 1964.

Associate Athletic Professionals

Brockbank, Bruce (1992) BS, MS, Brigham Young U., 1990, 1992.

Holmoe, Thomas A. (2002) BS, MS, Brigham Young U., 1983, 1994.

Lamb, Barry (1994) BS, U. of Oregon, 1978; MA, Arizona State U., 1988.

Lamb, Karen (2000) BS, Brigham Young U., 1978; MS, Arizona State U., 1984.

Merrill, R. Gaye (1981) BS, Brigham Young U., 1978; MS, Indiana U., Bloomington, 1979.

Powers, Timothy J. (1975) BS, U. of Montana, 1968; MA, San Jose State U., 1973.

Rose, David J. (1997) AS, Dixie Coll., 1980; BS, U. of Houston, 1983.

Russell, Keith (1992) BS, Brigham Young U., 1973.

Shane, Patrick (1985) BS, MS, Brigham Young U., 1968, 1970.

Assistant Professors

Feland, Brent (1999) BS, Brigham Young U., 1993; MS, Texas Women's U., 1995; PhD, Brigham Young U., 1999.

Hager, Ron (1999) BS, MS, Brigham Young U., 1991, 1994; PhD, Arizona State U., 1997.

Hunter, Iain (2001) BS, MEd, Brigham Young U., 1996, 1997; PhD, Oregon State U., 2001.

Parcell, Allen C. (1998) BS, Brigham Young U., 1993; MS, Iowa State U., 1995; PhD, Ball State U., 1998.

Pennington, Todd R. (1998) BS, Brigham Young U. 1991; MS, U. of Utah, 1995; PhD, Virginia Polytechnic Inst. and State U., 1998.

Prusak, Kevin (2002) BS, Brigham Young U., 1986; MEd, Utah State U., 1990; PhD, Arizona State U., 2000.

Vincent, Susan D. (2001) BS, MS, Brigham Young U., 1992, 1997; PhD, Arizona State U., 2001.

Assistant Athletic Professionals

Alvey, Vaughn (2002) BS, U. of Utah, 1970.

Bills, Alli (2001) BS, U. of Utah, 1998.

Borich, Mike (2001) BS, Western Illinois U., 1988.

Bosco, Robbie (1990) BS, MA, Brigham Young U., 1985, 1989.

Carpenter, Mari (2002) BS, Brigham Young U., 2000.

Chatterton, Jonas (2001) BS, U. of Utah, 2001.

Curtis, George (1985) BS, Southern Utah State Coll., 1971.

DuBose, Grayson (2002) BA, Brigham Young U., 1993.

Eakin, Gordon (1999) BS, U. of Utah, 1978.

Empey, Michael D. (2000) BS, MS, Brigham Young U., 1994, 1996.

Empey, William Blain (1998) BS, Brigham Young U., 1991; MS, Columbia U., 1993.

Eyestone, Ed D. (2000) BS, MS, Brigham Young U., 1985, 1990.

Hamblin, James O. (2002) BA, MEd, Brigham Young U., 1991, 2001.

Hanson, Mindy (2002) BA, Brigham Young U., 2002.

Judkins, Jeff (1999) BA, U. of Utah, 1984.

Kaufusi, Steve P. (2002) BS, Brigham Young U., 1994.

Karple, Michael P. (2002) BS, California State U., San Bernardino, 1994; MED, Azusa Pacific U., 1988.

Law, Vance A. (1999) BS, Brigham Young U., 1978.

Legas, Richard (1996) BS, Brigham Young U., 1971; MS, Embrey Riddle U., 1987.
Lott-Hogan, Tiffany (2002) BS, Brigham Young U., 1998.
Manning, Craig (1997) BS, MS, Brigham Young U., 1995, 2001.
Mertz, Shauna (1996) BS, Brigham Young U., 1993.
Mitchell, Brian K. (1996) BS, Brigham Young U., 1995.
Nyhus, Susan (1999) BS, MS, Brigham Young U., 1986, 1987; PhD, U. of Utah, 1992.
Omer, Jay (2001) BS, Southern Utah State U., 1972; MEd, Auburn U., 1985.
Osborne, James H. (1991) BS, U. of Utah, 1969.
Patchell, Shawn E. (2002) BA, Brigham Young U., 1993; MA, U. of California, Irvine, 1999.
Pearce, Brad (2000) BS, Brigham Young U., 1999.
Pella, Chris (1986) BS, Utah State U., 1966.
Peterson, Thomas L. (2002) BS, MS, EdD, Brigham Young U., 1978, 1982, 1992.
Pullins, Gary D. (1976) BA, MA, Brigham Young U., 1969, 1975.
Ramos, Robert J. (2002) BS, MS, Brigham Young U., 1995, 1999.
Reynolds, Lance (1983) BS, Brigham Young, U., 1980.
Roberts, Ryan A. (2002) BS, Brigham Young U., 1998; MEd, Utah State U., 2002.
Robison, Mark T. (1996) BS, MS, Brigham Young U., 1982, 1986.
Rockwood, Jennifer (1996) BA, Brigham Young U., 1989.
Skabelund, Shari (1996) BS, Brigham Young U., 1981.
Tidwell, Paul (2001) BA, Southern Utah State U., 1979.
Toolson, Andrew Kent (2001) BA, Brigham Young U., 1990; MA, Syracuse U., 1999.
Wardenburg, John Nathan (2001) BS, Brigham Young U., 1986; MS, Utah State U., 1992.
Watkins, Chris (1998) BS, Brigham Young U., 1994.
Watson, Jason (2002) BS, Brigham Young U., 1995.

Athletic Clinician
Morris, Kevin (2000) BS, Brigham Young U., 1992.

Emeriti
Bestor, Rollie R. (1969) BS, MS, U. of Wisconsin, Madison, 1954, 1958; EdD, Brigham Young U., 1969.
Blakemore, Connie L. (1978) BS, U. of Utah, 1960; MS, Brigham Young U., 1967; EdD, Temple U., 1984.
Bunker, Robert E. (1949) BS, Utah State U., 1937.
Call, C. Boyd (1960) BS, U. of Utah, 1950; MS, Brigham Young U., 1963; PhD, U. of Oregon, 1967.
Cryer, Walter (1964) BS, MS, U. of Illinois Medical, 1952, 1959; EdD, Brigham Young U., 1975.
Durrant, Earlene (1973) BS, MS, EdD, Brigham Young U., 1962, 1963, 1975.
Edwards, R. LaVell (1962) BS, Utah State U., 1952; MS, U. of Utah, 1960; EdD, Brigham Young U., 1978.
Felt, Richard G. (1967) BS, MA, Brigham Young U., 1958, 1980.
Fisher, A. Garth (1969) BS, Brigham Young U., 1955; MA, Sacramento State Coll., 1966; PhD, U. of New Mexico, 1969.
Francis, Rulon S. (1963) BS, MS, Brigham Young U., 1952, 1967; PhD, U. of Utah, 1971.
French, Roger W. (1980) BS, U. of Minnesota, Minneapolis, 1956; MA, Memphis State U., 1958.
Harrison, Joyce M. (1969) BA, MA, California State U., Long Beach, 1964, 1966; EdD, Brigham Young U., 1973.
Hawkes, Nena Rey (1960) BS, Utah State U., 1954; MS, Brigham Young U., 1965; PhD, Union Inst., 1993.
Hirschi, Willard (1964) BS, Brigham Young U., 1956; MS, Arizona State U., 1960.
Hirst, Cyntha C. (1948) BA, U. of Utah, 1947; MS, U. of Washington, 1952; PhD, U. of Utah, 1974.
Jarman, Boyd O. (1969) BS, Brigham Young U., 1954; MS, EdD, U. of Oregon, 1959, 1965.
Jensen, Clayne R. (1964) BS, MS, U. of Utah, 1952, 1956; EdD, Indiana U., Bloomington, 1963.
Jones, J. Richard (1961) BS, MS, Brigham Young U., 1951, 1955; EdD, U. of Northern Colorado, 1967.
Kimball, C. Rodney (1947) BS, MS, Brigham Young U., 1955, 1963.
Leishman, Courtney M. (1962) BS, Utah State U., 1958; MS, EdD, Brigham Young U., 1962, 1976.
Lewis, Kathryn (1972) BS, Brigham Young U., 1955; MA, Long Beach State Coll., 1962; EdD, Brigham Young U., 1978.
Ramage, Thomas J. (1973) BS, MS, Utah State U., 1957, 1962.
Roundy, Elmo S. (1963) BS, MEd, Brigham Young U., 1953, 1956; EdD, U. of California, Los Angeles, 1965.
Schmidt, Kenneth (1983) BS, MS, U. of Utah, 1964, 1969.
Silvester, L. Jay (1969) BS, MS, Utah State U., 1959, 1970; EdD, Brigham Young U., 1976.
Tucker, Karl L. (1961) BS, MS, Brigham Young U., 1952, 1964.
Vickers, Betty J. (1971) BS, Kent State U., 1955; MA, California State U., Los Angeles, 1960; EdD, Brigham Young U., 1976.
Wallace, Lu (1956) BS, Utah State U., 1954; MS, Washington State U., 1960.
Witbeck, Alan R. (1955) BS, MS, Brigham Young U., 1952, 1954.

Physical Science

J. Ward Moody, Coordinator
N-484 ESC, (801) 422-4347

Physical Science (PhyS)

Undergraduate Courses

100. Physical Science. (3:3:0) F, W, Sp, Su Independent Study also.
Conceptual lectures and demonstrations of the most significant and universal laws and models describing the physical world by faculty from Physics and Astronomy, Chemistry, and Geology departments. Satisfies GE Physical Science requirement.

110A. Physical Science A. (4:3:2) For majors in elementary, early childhood, or special education. F, W, Sp
Classical and modern physics and chemistry as they relate to current concepts of the physical world. Lab exercises illustrate many topics with concrete examples. With PhyS 110B satisfies GE Physical Science requirement.

110B. Physical Science B. (2:2:1) For majors in elementary, early childhood, or special education. F, W, Su
Concepts and methods used in geology to interpret rock record, protect and make use of earth materials, and better understand natural environment and how to live in it. Lab studies, field trips, home projects. With PhyS 110A satisfies GE Physical Science requirement.

111A. Physical Science A Laboratory. (1:0:2) F, W, Sp Prerequisite: PhyS 100; for majors in elementary, early childhood, or special education.
Laboratory exercises that illustrate physics and chemistry principles. To accompany or follow PhyS 100 lecture course. Not for students enrolled in PhyS 110A or 110B.

111B. Physical Science B Laboratory. (1:0:2) F, W, Su Prerequisite: PhyS 100; for majors in elementary, early childhood, or special education.
Laboratory exercises that illustrate geology principles. To accompany or follow PhyS 100 lecture course. Not for students enrolled in PhyS 110A or 110B.

Physics and Astronomy

R. Steven Turley, Chair
N-281A ESC, (801) 422-3095

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

All degree programs in the Department of Physics and Astronomy are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Over the centuries physicists and astronomers have studied the fundamental principles that govern the structure and dynamics of matter and energy in the physical world, from subatomic particles to the cosmos. Physicists also apply this understanding to the development of new technologies. For example, physicists invented the first lasers and semiconductor electronic devices.

Physics and astronomy students learn to approach complex problems in science and technology from a broad background in mechanics, electricity and magnetism, statistical and thermal physics, quantum mechanics, relativity, and optics. The tools they develop at BYU include problem solving by mathematical and computational modeling, as well as experimental discovery and analysis. All students gain professional experience in a research, capstone, or internship project, usually in close association with faculty. Together these experiences can provide excellent preparation for employment or for graduate studies in physics, other sciences, engineering, medicine, law, or business.

Most physicists and astronomers work in research and development in industrial, government, or university labs to solve new problems in technology and science. They also share the beauty discovered in our physical universe by teaching in high schools, colleges, and universities.

Career Opportunities

A degree in physics and astronomy can provide:

1. Preparation for those who intend to enter industrial or governmental service as physicists or astronomers.
2. Education for those who intend to pursue graduate work in physics or astronomy.
3. Education in the subject matter of physics for prospective teachers of the physical sciences.
4. Undergraduate education for those who will pursue graduate work in the professions: business (e.g., an MBA), law, medicine, etc.
5. Fundamental background for other physical sciences and engineering, in preparation for graduate study in these fields.
6. Physics fundamentals required by the biological science, medical, dental, nursing, and related programs.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Physics Teaching
BS	Applied Physics
	Emphases:
	Computer Science
	Selected Options
BS	Physics
BS	Physics-Astronomy
Minors	Astronomy
	Physics
	Physics Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Physics
PhD	Physics
PhD	Physics and Astronomy

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

1. It is recommended that a student complete the following courses in high school:

   3 units of English
   1 unit of physical science, either chemistry or physics.
   4 units of mathematics, consisting of algebra, geometry, trigonometry, and calculus. This should qualify students to begin college mathematics with Math 113, Calculus 2.

   Because mathematics provides the foundation for all work in the physical and mathematical sciences, high school preparation in this subject is of particular importance.
2. Students in physics should take mathematics beginning the first semester of the freshman year. Physics majors should ordinarily begin with Math 113. If preparation is inadequate, students might wish to enter the university during the spring or summer term and bring their mathematics preparation to the point where they can take Math 113 concurrently with Phscs 121 during the fall semester.
3. Students are strongly urged to learn to use a computer, including some knowledge of programming.

BA Physics Teaching (73.5–75.5 hours*, including licensure hours)

Major Requirements

1. No D credit is allowed in major courses.
2. Contact the Education Advisement and Certification Office for entrance requirements into the licensure program.
3. A teaching minor is not required for licensure. However, it is strongly recommended.
4. Complete the following:
   Phscs 121, 123, 127, 150, 191, 220, 222, 250, 340.

   Note: Phscs 191 should be taken early in the student's schedule.
5. Complete one course from the following:
   Hist 311.
   Phil 423.
   Phscs 314.
6. Complete the following:
   Math 112, 113, 302.
7. Complete one course from the following:
   Math 303, 334.
8. Complete an additional 9 hours from the following or any 300-, 400-, or 500-level physics course not already taken. At least 6 hours must be upper-division physics courses (Phscs 321 and 471 are highly recommended):
   Phscs 137, 167, 281.
9. Complete the Professional Education Component (28–29 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

Recommended Courses

Chem 105, 106.

*Hours include courses that may fulfill GE or university requirements.

BS Applied Physics: Computer Science Emphasis (63.5–67.5 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Phscs 121, 123, 150, 191, 220, 222, 230, 250, 318, 321, 330, 340, 430, 441, 581.

   Note: Phscs 191 should be taken early in the student's schedule.

3. Complete one of the following options:
   Either Math 113, 302
   Or Math 113, 214, 343.
4. Complete one course from the following:
   Math 303, 334.
5. Complete the following:
   CS 142, 235, 236, 240.
6. Complete one course from the following:
   CS 124, 224, 252, 324, 330.
   ECEn 124, 224, 324, 450.
   Phscs 513R.
7. Complete one course from the following:
   Phscs 360, 427, 442, 451, 471, 517, 545, 561, 571, 585.
8. Complete a capstone project, including the following:
   a. Meet with department applied physics capstone project coordinator early in the junior year or before to obtain information about projects and procedures.
   b. Complete 2 hours of the following:
      Phscs 492R.

*Hours include courses that may fulfill GE or university requirements.

BS Applied Physics: Selected Options Emphasis

(58.5–61.5 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Consult with a faculty advisor as early as possible to choose electives.
3. Complete the following:
   Phscs 121, 123, 150, 191, 220, 222, 230, 250, 318, 321, 330, 340, 350, 430, 441.

   Note: Phscs 191 should be taken early in the student's schedule.
4. Complete one course from the following:
   ECEn 460.
   Phscs 442, 471.
5. After gaining department chair's approval of courses selected to define an option, complete an additional 12 hours of electives (cannot include any courses already taken above). These 12 hours must consist of a coherent set of upper-division courses with an identified educational goal. Some standard options are available from the department, including microelectronics and biomedical physics.
6. Complete one of the following options:
   Either Math 113, 302
   Or Math 113, 214, 343.
7. Complete one course from the following:
   Math 303, 334.
8. Complete a capstone project, including the following:
   a. Meet with department applied physics capstone project coordinator early in the junior year or before to obtain information about projects and procedures.
   b. Complete 2 hours of the following:
      Phscs 492R.

*Hours include courses that may fulfill GE or university requirements.

BS Physics (58.5–61.5 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Phscs 121, 123, 150, 191, 220, 222, 230, 250, 318, 321, 330, 340, 350, 360, 430, 441, 442, 451, 452, 471.

   Note: Phscs 191 should be taken early in the student's schedule.
3. Complete one of the following options:
   Either Math 113, 302
   Or Math 113, 214, 343.
4. Complete one course from the following:
   Math 303, 334.
5. Complete a senior thesis, including the following:
   a. Meet with department undergraduate research coordinator early in the junior year or before to obtain information about research projects and senior thesis procedures.
   b. Complete 2 hours of the following:
      Phscs 498R, 499R.

Recommended Course

Chem 105.

*Hours include courses that may fulfill GE or university requirements.

BS Physics-Astronomy (60.5–63.5 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Phscs 121, 123, 150, 191, 220, 222, 227, 228, 230, 250, 318, 321, 329, 330, 340, 360, 427, 428, 451, 471.

   Note: Phscs 191 should be taken early in the student's schedule.
3. Complete one of the following options:
   Either Math 113, 302
   Or Math 113, 214, 343.
4. Complete one course from the following:
   Math 303, 334.
5. Complete a senior thesis, including the following:
   a. Meet with department undergraduate research coordinator early in the junior year or before to obtain information about research projects and senior thesis procedures.
   b. Complete 2 hours of the following:
      Phscs 498R, 499R.

Recommended Course

Chem 105.

*Hours include courses that may fulfill GE or university requirements.

Minor Astronomy (26 hours*)

Minor Requirements

Complete the following:
Phscs 121, 227, 228, 329, 427, 428.
Math 112, 113.

*Hours include courses that may fulfill GE or university requirements.

Minor Physics (23 hours*)

Minor Requirements

Complete the following:
Phscs 121, 123, 150, 220, 222, 250, 340.
Math 112, 113.

*Hours include courses that may fulfill GE or university requirements.

Minor Physics Teaching (25 hours*)

Minor Requirements

Complete the following:
Phscs 121, 123, 150, 220, 222, 250, 314.
Math 112, 113.

*Hours include courses that may fulfill GE or university requirements.

Physics and Astronomy (Phscs)

Undergraduate Courses

101. Fundamentals of Physics. (3:3:0) F
Principles of classical and modern physics as they relate to current concepts of our physical environment.

105. Introductory Applied Physics. (3:3:0) F, W, Sp Prerequisite: high school algebra and trigonometry. Recommended: concurrent enrollment in Phscs 107.
Applied physics course not requiring calculus. Topics include mechanics, heat, wave motion, sound.

106. Introductory Applied Physics. (3:3:0) F, W, Su Prerequisite: Phscs 105 or equivalent. Recommended: concurrent enrollment in Phscs 108.
Continuation of Phscs 105. Topics include electricity and magnetism, atomic and nuclear physics, and optics.

107. Introductory Applied Physics Laboratory. (1:0:3) F, W, Sp Prerequisite: Phscs 105 or concurrent enrollment.

108. Introductory Applied Physics Laboratory. (1:0:3) F, W, Su Prerequisite: Phscs 106 or concurrent enrollment.

121. Principles of Physics 1. (3:3:1) F, W, Sp, Su Prerequisite: calculus.
Newtonian mechanics. Weekly lab.

123. Principles of Physics 2. (3:3:1) F, W, Sp, Su Prerequisite: Phscs 121.
Waves, thermal physics, optics, special relativity, and introduction to modern physics. Weekly lab.

127. Descriptive Astronomy. (3:3:0.5) F, W, Sp, Su Honors and Independent Study also.
Nonmathematical presentation of knowledge of the content and history of the cosmos, frequently using observatory and planetarium.

137. Introduction to the Atmosphere and Weather. (3:3:0) F, W Prerequisite: PhyS 100 or equivalent.
Nonmathematical introduction to characteristics of the atmosphere, emphasizing structure and dynamic behavior, including the environmental impact of man.

150. Introduction to Experimental Physics 1. (1:1:2) F, W, Sp Prerequisite: Phscs 123 or concurrent enrollment.
Using laboratory equipment, sources of uncertainty, statistical analysis of data, curve fitting, computer data acquisition, measurements of motion, electrical measurements.

167. Descriptive Acoustics of Music and Speech. (3:3:0) F, W, Sp Prerequisite: PhyS 100 or equivalent.
Introductory acoustics course, emphasizing physical principles underlying production and perception of music and speech.

191. Introduction to Physics Careers and Research. (0.5:1:0) F
Survey of BYU undergraduate physics and astronomy programs, careers in physics and astronomy, and current physics and astronomy research. Take first semester after registered as physics major.

198. Physics and Mathematics Review. (1:2:0) F 1st blk. Prerequisite: Phscs 121; Math 113 or concurrent enrollment.
Review of mathematics and introductory physics for returning missionaries and others returning after a significant break.

220. Principles of Physics 3. (3:3:1) F, W, Sp Prerequisite: Phscs 121 or equivalent; Math 113 or equivalent.
Electricity and magnetism. Weekly lab.

222. Modern Physics. (3:3:0) F, W, Su Prerequisite: Phscs 121, 123, 220.
Quantum physics, atoms, molecules, condensed matter, nuclei, elementary particles, and selected topics in contemporary physics.

227. Solar System Astronomy. (3:3:0) F Prerequisite: Phscs 121, 123; Math 113 or concurrent enrollment.
Physics of light and matter, Newton's laws, solar-system dynamics, and planetary surfaces and atmospheres.

228. Stellar and Extragalactic Astronomy. (3:3:0) W Prerequisite: Math 113, Phscs 227.
Stellar atmospheres, stellar interiors, stellar evolution, interstellar matter, galactic structure, external galaxies, and cosmology.

230. Computational Physics Lab 1. (1:0:3) F, W Prerequisite: Phscs 220 or concurrent enrollment.
Numerical and symbolic differentiation, integration, and differential equations, using Maple. Applications in mechanics, optics, and special relativity.

250. Introduction to Experimental Physics 2. (1:1:2) F, W, Su Prerequisite: Phscs 150 or exposure to programming in LabView.
Electronic devices and measurements, transducers, time and frequency response, optical and heat experiments, nonlinear curve fitting, designing computer interfacing applications.

281. Principles of Solid State Physics. (3:3:1) For students in science, computer science, technology, and engineering. F Prerequisite: Phscs 121, 220.
Introduction to physics of solids, including laboratory experience.

297R. Introduction to Research. (1–3:0:Arr. ea.) F, W, Sp, Su
Faculty-supervised research experience.

313R. Special Topics in Physics. (1–3:Arr.:0 ea.) On dem.
Special topics in physics for undergraduate physics majors.

314. (Phscs-Hist 311–Phil 423) History and Philosophy of Science. (3:3:0) F Prerequisite: PhyS 100 or instructor's consent.
Scientific explanation, concepts, and models. Philosophical assumptions and criteria for theory selection, as exemplified by historical development of basic ideas in science.

318. Introduction to Classical Field Theory. (3:3:0) F, W, Sp Prerequisite: Phscs 230; Math 303 or 334 or concurrent enrollment.
Classical equations of physical fields; algebra of complex variables; applying Fourier analysis, Fourier transforms, and orthogonal functions.

321. Mechanics. (3:3:0) F, Sp Prerequisite: Phscs 121, Math 303 or 334. Recommended: concurrent enrollment in Phscs 330.
Newton's laws applied to particles and systems of particles, including rigid bodies. Conservation principles and Lagrange's and Hamilton's equations.

329. Observational Astronomy. (3:2:4) W Prerequisite: Phscs 127 (or 227 and 228).
Basic techniques of observational astronomy, emphasizing practical experience in optical data acquisition and analysis.

330. Computational Physics Lab 2. (1:0:3) F, Sp Prerequisite: Phscs 230; 321 or concurrent enrollment; Math 303 or 334 or equivalent.
Numerical solution of ordinary differential equations, linear algebra and eigenvalues, chaos theory. Applications to dynamics. Introduction to programming in Matlab.

340. Electronics Lab. (1:1:2) F, Sp Prerequisite: Phscs 220.
Introduction to analog and digital circuits.

350. Advanced Experimental Techniques. (3:0:6) W, Su Prerequisite: Phscs 250, 340; or instructor's consent. Recommended: knowledge of a computer programming language.
Vacuum systems, machine shop practice, design and use of digital and analog circuits, design of computer-controlled experiments, Fourier analysis, writing proposals, technical literature.

360. Statistical and Thermal Physics. (3:3:0) W Prerequisite: Phscs 222, Math 303 or 334.
Principles of statistical mechanics and thermodynamics, with applications.

391R. Seminar in Current Physics. (1:1:0 ea.) F, W on dem.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) For students engaged in the cooperative education program. F, W, Sp, Su Prerequisite: both department chair's and cooperative education coordinator's consent.

427, 428. Introduction to Astrophysics. (3:3:0 ea.) 427:F; 428:W Prerequisite: Phscs 227, 228.
Principles and observational techniques of astrophysics.

430. Computational Physics Lab 3. (1:0:3) W, Su Prerequisite: Phscs 222, 318, 330.
Static and dynamic boundary value problems, partial differential equations. Applications in electrostatics, thermodynamics, waves, and quantum mechanics. Programming with Matlab.

441. Electrostatics and Magnetism. (3:3:0) F, Sp Prerequisite: Phscs 220, 318. Recommended: concurrent enrollment in Phscs 430.
Classical theory of static electric and magnetic fields.

442. Electrodynamics. (3:3:0) W, Su Prerequisite: Phscs 441.
Maxwell's equations, radiation, interaction of electromagnetic fields with matter, and special relativity.

451. Quantum Mechanics. (3:3:0) F Prerequisite: Phscs 222, 318, or equivalent.
Analytical foundations of quantum mechanics.

452. Applications of Quantum Mechanics. (3:3:0) W Prerequisite: Phscs 451.
Applications of quantum mechanics to atomic, molecular, statistical, condensed-matter, and nuclear physics; elementary particles.

471. Principles of Optics. (3:3:1) W Prerequisite: Phscs 123, 220. Recommended: Phscs 318.
Electromagnetic wave phenomena, including polarization effects, interference, coherence, dispersion, ray theory, diffraction; introduction to quantum nature of light. Laboratory component emphasizes applications.

492R. Capstone Project in Applied Physics. (1–3:0:Arr. ea.) F, W, Sp, Su
Senior capstone projects in applied physics. Topic must be approved by department applied physics capstone project coordinator or department chair.

497R. Research in Physics. (1–3:0:Arr. ea.) F, W, Sp, Su

498R. Senior Thesis. (1–3:0:Arr. ea.) F, W, Sp, Su
Individually directed research for seniors. Thesis topic must be cleared by faculty member before registration.

499R. Honors Thesis. (1–3:0:Arr. ea.) F, W, Sp, Su

500-Level Graduate Courses (available to advanced undergraduates)

513R. Special Topics in Contemporary Physics. (1–3:3:0 ea.) F, W Prerequisite: instructor's consent.
Topics generally related to recent developments in physics.

517, 518. Mathematical Physics. (3:3:0 ea.) 517:F; 518:W Prerequisite: Phscs 318, Math 334.
Topics in modern theoretical physics, including applications of matrix and tensor analysis and linear differential and integral operators.

529. Advanced Observational Astronomy. (3:3:0) On dem. Prerequisite: Phscs 427, 428.
Advanced techniques of observational astronomy, emphasizing knowledge and skills necessary to carry out observational scientific investigation in astronomy.

545. Introduction to Plasma Physics. (3:3:0) F alt. yr. Prerequisite: Phscs 321, 431, 441.
Introduction to plasma physics, including single-particle motion and both fluid and kinetic models of plasma behavior.

561. Fundamentals of Acoustics. (3:3:0) F
Generation, transmission, and reception of sound. Vibrating systems, properties of elastic media, mechanical and electrical energy, and radiation.

562. Applied Acoustics. (3:3:0) W Prerequisite: Phscs 561 or instructor's consent.
Acoustic transducers, spectral analysis, waves in ducts and enclosures, higher-order acoustic sources, fan noise, jet noise, passive noise and vibration control, active noise and vibration control.

565. Acoustics of Music and Speech. (3:3:0) W alt. yr. Prerequisite: Phscs 561 or instructor's consent.
Sound production and perception, techniques for analysis and synthesis, computer modeling, machine recognition, ensemble effects.

566. Acoustics of Enclosures and Interacting Structures. (3:3:0) On dem. Prerequisite: Phscs 561, 562; or instructor's consent.
Acoustic fields in enclosures, reverberation time, low- and high-modal density fields, sound-structure interaction, transmission through panels, isolation techniques, and advanced noise and vibration control.

570. Atomic Physics. (3:3:0) F alt. yr. Prerequisite: Phscs 451 or equivalent.
Classical and quantum descriptions of the interaction of light with atoms. Atomic spectroscopy. Applications to lasers and astrophysics.

571. Laser Physics. (3:3:0) F alt. yr. Prerequisite: Phscs 471 or basic understanding of electromagnetic waves and optics.
Laser amplification, cavity design, and control and characterization of temporal and spatial modes. Applications in nonlinear optics and atomic physics.

581. Solid-State Physics. (3:3:0) W Prerequisite: Phscs 222 or equivalent.
Introduction for students in physics, chemistry, geology, and engineering. Phenomena occurring in solids and their related physical concepts.

583. Physics of Nanostructures, Surfaces, and Interfaces. (3:3:0) Prerequisite: Phscs 222 or equivalent. Recommended: Phscs 281 or 581 or equivalent; Phscs 451 or Chem 462 or equivalent.

Properties of nanostructures, surfaces, and interfaces; experimental methods. Applications to emerging problems and opportunities in science and technology. Emphasis on concepts.

585. Thin-Film Physics. (3:3:0) W alt. yr. Prerequisite: Phscs 222 or equivalent.

Preparation, characterization, use, and special properties of modern thin films; interdisciplinary treatment. Of interest to students in applied physics and engineering.

587. Physics of Semiconductor Devices. (3:3:0) F Prerequisite: Phscs 281 or 581 or ECEn 450.

Device physics, with an in-depth study of the MOS transistor and other nanoscale computing devices.

591R. Colloquium. (0.5:1:0 ea.) F, W

Required of all graduate students every semester in residence.

597R. Introduction to Research. (0.5:0:1.5 ea.) F, W, Sp Su

One or two research areas to be selected, with 20 hours of participation required each semester.

599R. Academic Internship. (2–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department cooperative education coordinator's consent.

Cooperative education internships off campus.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Physics and Astronomy Faculty

Professors

Allred, David D. (1987) BS, Brigham Young U., 1971; MA, PhD, Princeton U., 1973, 1977.
Berrondo, Manuel (1993) BS, U. of Mexico, 1966; PhD, U. of Upsala, 1969.
Clark, Robert B. (2000) BA, MPhil, PhD, Yale U., 1963, 1966, 1968.
Dibble, William E. (1961) BS, PhD, California Inst. of Technology, 1954, 1960.
Evenson, William E. (1970) BS, Brigham Young U., 1965; PhD, Iowa State U., 1968.
Hatch, Dorian M. (1968) BS, Utah State U., 1962; MA, PhD, State U. of New York, 1965, 1968.
Jones, Steven E. (1985) BS, Brigham Young U., 1973; PhD, Vanderbilt U., 1978.
Mason, Grant W. (1970) BA, Brigham Young U., 1961; PhD, U. of Utah, 1969.
McNamara, D. Harold (1955) BS, PhD, U. of California, Berkeley, 1947, 1950.
Moody, J. Ward (1990) BS, Brigham Young U., 1980; MS, PhD, U. of Michigan, 1984, 1986.
Rasband, S. Neil (1972) BA, PhD, U. of Utah, 1964, 1969.
Rees, Lawrence B. (1986) BS, Brigham Young U., 1976; MS, PhD, U. of Maryland, 1979, 1983.
Sommerfeldt, Scott D. (1995) BM, MS, Brigham Young U., 1983, 1986; PhD, Pennsylvania State U., 1989.
Spencer, Ross L. (1984) BS, Brigham Young U., 1974; MS, PhD, U. of Wisconsin, 1976, 1979.
Stokes, Harold T. (1981) BS, Brigham Young U., 1971; PhD, U. of Utah, 1977.
Taylor, Benjamin J. (1980) BA, PhD, U. of California, Berkeley, 1964, 1969.
Turley, R. Steven (1995) BS, Brigham Young U., 1978; PhD, Massachusetts Inst. of Technology, 1984.

Associate Professors

Christensen, Clark G. (1972) BS, Brigham Young U., 1966; PhD, California Inst. of Technology, 1972.
Hart, Grant W. (1985) BS, Brigham Young U., 1977; PhD, U. of Maryland, 1983.
Hess, Bret C. (1994) BS, Brigham Young U., 1982; PhD, Iowa State U., 1988.
Peatross, Justin B. (1995) BS, MS, Brigham Young U., 1986, 1988; PhD, U. of Rochester, 1993.
VanHuele, Jean-François S. (1988) BS, Teacher's Proficiency, PhD, Brussels Free U., Belgium, 1979, 1983, 1987.

Associate Research Professors

Peterson, Bryan G. (1991) BS, PhD, Brigham Young U., 1978, 1983.
Joner, Michael D. (1981) BS, MS, Brigham Young U., 1979, 1981.

Assistant Professors

Bergeson, Scott D. (1998) BS, Brigham Young U., 1990; PhD, U. of Wisconsin, Madison, 1995.
Campbell, Branton (2002) BS, Brigham Young U., 1993; MS, PhD, U. of California, Santa Barbara, 1999.
Davis, Robert C. (1998) BS, Brigham Young U., 1989; PhD, U. of Utah, 1996.
Durfee, Dallin (2001) BS, Brigham Young U., 1994; PhD, Massachusetts Inst. of Technology, 1999.
Hintz, Eric (1998) BS, Case Western Reserve U., 1988; PhD, Brigham Young U., 1995.
Hirschmann, Eric W. (2000) BS, Brigham Young U., 1991; PhD, U. of California, Santa Barbara, 1996.
Leishman, Timothy W. (2000) BA, Brigham Young U., 1990; PhD, Pennsylvania State U., 2000.

Assistant Research Professor

Lewis, James (2001) BS, PhD, Arizona State U., 1990, 1996.

Emeriti

Ballif, Jae R. (1962) BS, Brigham Young U., 1953; MA, PhD, U. of California, Los Angeles, 1961, 1962.
Barnett, J. Dean (1958) BA, PhD, U. of Utah, 1954, 1959.
Decker, Daniel L. (1958) BS, MS, Brigham Young U., 1953, 1955; PhD, U. of Illinois, 1958.
Dixon, Dwight R. (1959) BS, Utah State U., 1942; PhD, U. of California, Berkeley, 1955.
Dudley, J. Duane (1956) BS, Brigham Young U., 1952; MA, Rice U., 1953; PhD, U. of Utah, 1959.
Gardner, Andrew L. (1964) BS, Utah State U., 1940; PhD, U. of California, Berkeley, 1955.
Gardner, John H. (1949) BS, Utah State U., 1943; MA, PhD, Harvard U., 1947, 1950.
Hansen, H. Kimball (1963) BS, MS, Brigham Young U., 1957, 1959; PhD, U. of California, Berkeley, 1966.
Harrison, B. Kent (1964) BS, Brigham Young U., 1955; MA, PhD, Princeton U., 1957, 1959.
Jones, Douglas E. (1964) BS, MS, PhD, Brigham Young U., 1957, 1959, 1964.
Knight, Larry V. (1973) BS, MS, Brigham Young U., 1958, 1959; PhD, Stanford U., 1965.
Merrill, John J. (1971) BS, MS, PhD, California Inst. of Technology, 1955, 1956, 1960.
Nelson, H. Mark (1959) BS, MS, Brigham Young U., 1953, 1954; PhD, Harvard U., 1960.
Palmer, E. Paul (1966) BA, PhD, U. of Utah, 1952, 1956.
Strong, William J. (1967) BS, MS, Brigham Young U., 1958, 1959; PhD, Massachusetts Inst. of Technology, 1964.
Vanfleet, Howard B. (1960) BS, Brigham Young U., 1955; PhD, U. of Utah, 1961.

Physiology and Developmental Biology

R. Ward Rhees, Chair
574 WIDB, (801) 422-2006

College of Biology and Agriculture Advisement Center
380 WIDB, (801) 422-3042

Admission to Degree Program

All degree programs in the Department of Physiology and Developmental Biology are open enrollment.

The Discipline

Physiology is the study of the *functions* of the body systems. Developmental biology is the study of how specific genes govern differentiation of cells, tissues, and organs with unique structure and functions. Both disciplines require a firm foundation of mathematics, chemistry, physics, and cellular biology. The related area of biophysics uses the methods of physics, chemistry, mathematics, and biology to investigate the *physical* basis of life.

Upper-division courses require synthesizing and integrating information from many areas of science to allow understanding of such remarkable processes as how the heart pumps blood, how neurons communicate with one another, how insulin regulates blood sugar, and how specific gene products determine the morphology and functional capacity of the nervous system. Knowledge in these areas is expanding rapidly as new techniques are applied in molecular biology. Hence, significant exposure to the concepts and techniques of molecular biology is an important component of the major.

Career Opportunities

A major in physiology and developmental biology prepares students to pursue advanced degrees in either the biological sciences or nonbiological fields or to enter directly into employment. This major provides outstanding preparation for students seeking admittance into professional programs in medicine, dentistry, optometry, podiatry, chiropractic, or pharmacy. Students who have aspirations of doing health-related research will find a challenging, thorough preparaton for entrance into graduate programs and beyond. Graduates of the program will also have the academic and laboratory skills necessary for employment in medical, biotechnological, and pharmaceutical industries. This degree offers students pursuing advanced degrees in business, public management, or law the knowledge and training necessary to be admitted into professional schools and work in governmental agencies, health care and biotechnical industries, and patent or health care law.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Biophysics
BS Physiology and Developmental Biology

Students should see their college advisement center for help or information concerning the undergraduate programs.

Note: For the neuroscience program, see the Neuroscience Center section of this catalog.

Graduate Programs and Degrees

MS and PhD degrees are offered. For information see the BYU 2003–2004 Graduate Catalog and the Web page for the College of Biology and Agriculture.

BS Biophysics (63.5–65.5 hours*)

Major Requirements

1. Complete the following biology core courses:
   Biol 120, 220, 240, 241, 340, 360, 420.
2. Complete the following chemistry courses:
   Chem 105, 106, 107, 351, 352, 353 (1 hour), 461, 468, 481.
3. Complete one of the following options (the Phscs 121 sequence is strongly recommended):
   Either Phscs 121, 123, 220
   And Phscs 150 or 250
   Or Phscs 105, 106, 107, 108.
4. Complete the following major core courses:
   PDBio 362, 363, 455R.
5. Complete the following capstone course:
   PDBio 568.

6. Complete 10 hours from the following. At least 5 hours must come from the mentored experience and at least 3 hours from electives.
   A. Mentored laboratory experience (must be in an approved biophysics lab):
      PDBio 494R, 495R.
   B. Electives
      Chem 482, 581, 583, 584, 586.
      MMBio 430, 441, 442.
      Neuro 480.
      PDBio 220, 365, 450R, 484, 550R, 561, 565.

Recommended Courses

Professional schools and graduate programs may require additional courses not required for this major, such as calculus or statistics. Contact the programs to which you may apply to determine the specific courses required.

Students considering professional or graduate degrees should take at least two semesters of mathematical courses. The recommended sequences are:
1. Math 119, Stat 221 for students who want exposure to calculus and statistics.
2. Math 112, 113 for students who want a firm foundation in calculus.
3. Math 112, 113, Stat 221 for students who want a firm foundation in both calculus and statistics.

*Hours include courses that may fulfill GE or university requirements.

BS Physiology and Developmental Biology (63–64 hours*)

Major Requirements

1. Complete the following biology core courses:
   Biol 120, 220, 240, 241, 340, 360, 420.
2. Complete the following chemistry and physics courses:
   Chem 105, 106, 107, 351, 352, 481.
   Phscs 105, 106.
3. Complete the following major core courses:
   PDBio 225, 362, 363, 482, 455R.
4. Complete one course from the following:
   PDBio 365, 484.
5. Complete one course from the following advanced molecular biology courses:
   MMBio 430, 441.
6. Complete one course from the following capstone courses:
   Neuro 480.
   PDBio 561, 565, 568, 582.
7. Complete 6.5 hours from the following courses, including at least 1 hour from the mentored experience list and at least 2 hours from the advanced laboratory requirement list.
   A. Mentored experience
      PDBio 349R, 494R, 550R.
   B. Advanced laboratory experience
      Chem 581, 583, 584, 586.
      MMBio 442.
      PDBio 495R.
   C. Elective courses (courses used to fill any requirements listed above cannot count for this requirement):
      Biol 350, 421.
      Chem 482.
      MMBio 302, 402, 430, 441, 442.
      Neuro 480.
      PDBio 220, 365, 450R, 455R, 561, 562, 565, 568, 582.
      RelC 491, 492.

Recommended Courses

Professional schools and graduate programs may require additional courses not required for this major, such as Phscs 107, 108, Chem 353, calculus, or statistics. Contact the programs to which you may apply to determine the specific courses required.

Students considering professional and graduate degrees should take at least two semesters of mathematical courses. The recommended sequences are:
1. Math 119, Stat 221 for students who want exposure to calculus and statistics.
2. Math 112, 113 for students who want a firm foundation in calculus.
3. Math 112, 113, Stat 221 for students who want a firm foundation in both calculus and statistics.

*Hours include courses that may fulfill GE or university requirements.

Physiology and Developmental Biology (PDBio)

Undergraduate Courses

205. Human Biology. (3:3:0) For nonbiology majors. F, W
Body systems and influence of heredity.

220. Human Anatomy. (3:2:2) F, W, Su Honors also.
Structure and function of the human body.

225. Tissue Biology. (3:2:3) W Prerequisite: Biol 120.
Human anatomy and histology; function of cells in tissue; early stages of embryology.

305. Essentials in Human Physiology. (4:4:2) F, W, Sp Honors also. Prerequisite: Chem 101 or equivalent. Recommended: a biology course.
Function of body organ systems. Not acceptable for physiology and developmental biology major.

320. Dissection Techniques in Human Anatomy. (2:1:3) F, W Prerequisite: PDBio 220.
Techniques of human cadaver dissection. In-depth study of anatomical structure and anatomically significant facts; regional rather than systemic emphasis.

349R. Physiology and Developmental Biology Teaching Seminar. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: grade B or above in the specific physiology and developmental biology course; instructor's consent.
Undergraduate students teaching small help sections for lecture portion of physiology and developmental biology courses or helping to teach departmental student lab.

362. Advanced Physiology. (3:3:1) F, W, Sp Prerequisite: Biol 240; PDBio 225; Phscs 106 or 220.
Integrated approach to organ system and cellular physiology. Problem solving and calculations.

363. Advanced Physiology Laboratory. (1:0.5:1.5) F, W, Sp Prerequisite: PDBio 362 or concurrent enrollment; or instructor's consent.
Experiments and exercises in advanced physiology emphasizing human physiology. Computer simulations of muscle function, endocrine disease, and human physiology. Problem solving and calculations.

365. Pathophysiology. (4:4:0) F, W Prerequisite: PDBio 305 or 362.
Variations in physiological mechanisms that account for development of common disturbances in normal control and activities of body's organs and organ systems.

399R. Academic Internship: Physiology and Developmental Biology. (1–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department cooperative education coordinator's consent.
On-the-job experience in off-campus laboratories related to physiology, biophysics, or developmental biology.

450R. Topics in Physiology and Developmental Biology. (1–3:Arr.:Arr. ea.) F, W, Sp, Su
Subjects may include:
—Protein Expression in Bacteria
—Techniques in Embryology
—Clinical Pharmacology
—Herbal Pharmacology

455R. Physiology and Developmental Biology Seminar. (0.5:1:0 ea.) F, W
Seminar (research) presentations for undergraduates in physiology and developmental biology.

482. Developmental Biology. (3:3:1) W Prerequisite: Biol 240, 241, 360. Recommended: PDBio 225.
Invertebrate and vertebrate developmental biology. Embryonic gastrulation, neurulation, patterning, etc. Modern approaches and research strategies. Gene function, cell signaling, signal transduction during embryogenesis.

484. Human Embryology. (3:3:0) F Prerequisite: Biol 360 or equivalent. Recommended: PDBio 225.
Developmental milestones of prenatal life; etiology of congenital malformations, emphasizing molecular and cellular changes and their functional consequences.

494R. Undergraduate Research in Physiology and Developmental Biology. (1–4:Arr.:Arr. ea.) F, W, Sp, Su
Basic (entry-level) research laboratory experience for students interested in physiology and developmental biology.

495R. Advanced Undergraduate Research in Physiology and Developmental Biology. (1–4:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: 2 credit hours of PDBio 494R.
Senior-level research laboratory experience for majors in physiology and developmental biology.

499R. Senior Honors Thesis. (1–3:Arr.:Arr. ea.) F, W, Sp, Su
Honors thesis. Topic to be cleared with Honors Program and Physiology and Developmental Biology Department.

500-Level Graduate Courses (available to advanced undergraduates)

550R. Advanced Topics in Physiology and Developmental Biology. (1–4:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
Close interaction between small groups of students and instructor on topics in physiology, developmental biology, or biophysics.

561. Physiology of Drug Mechanisms. (3:2:3) F Prerequisite: PDBio 362 or instructor's consent.
Overview of physiological and pharmacological mechanisms and principles of human therapeutics as applied to clinically significant pathophysiology.

562. Reproductive Physiology. (3:3:0) F even yr. Prerequisite: PDBio 362 or equivalent. Recommended: Chem 481, PDBio 482.
Mammalian reproductive physiology.

565. Endocrinology. (3:3:0) W even yr. Prerequisite: PDBio 362 or instructor's consent.
Mammalian hormones.

568. Cellular Electrophysiology and Biophysics. (3:2:3) F Prerequisite: PDBio 362 or instructor's consent.
Using electrophysiology and biophysics as an approach to study of physiology. Extensive look at ion channels and cell signaling.

582. Developmental Genetics. (3:3:0) W odd yr. Prerequisite: PDBio 482 or equivalent.
Gene function and regulation during cell specification and differentiation, pattern formation, and organogenesis in developing embryo.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Physiology and Developmental Biology Faculty

Professors
Bell, John D. (1990) BS, Brigham Young U., 1982; PhD, U. of California, San Diego, 1987.
Busath, David D. (1995) BA, MD, U. of Utah 1974, 1978.
Porter, James P. (1998) BS, MS, Brigham Young U., 1976, 1978; PhD, U. of California, San Francisco, 1982.
Rhees, Reuben Ward (1973) BS, U. of Utah, 1967; PhD, Colorado State U., 1971.
Seegmiller, Robert E. (1972) BS, MS, U. of Utah, 1965, 1967; PhD, McGill U., Canada, 1970.
Tolman, Richard R. (1982) BS, MS, U. of Utah, 1963, 1964; PhD, Oregon State U., 1969.
Winder, William W. (1982) BS, PhD, Brigham Young U., 1966, 1971.
Woolley, Bruce H. (1977) BS, U. of Utah, 1965; PharmD, U. of Southern California, 1972.

Associate Professors
Judd, Allan M. (1991) BS, MS, Brigham Young U., 1973, 1978; PhD, West Virginia U., 1982.
Lephart, Edwin D. (1994) BS, MS, Brigham Young U., 1979, 1982; PhD, U. of Texas Southwestern Medical Center, Dallas, 1989.
Silcox, Roy W. (1992) BS, Brigham Young U., 1981; MS, PhD, North Carolina State U., 1984, 1986.
Woodbury, Dixon J. (2001) BA, U. of Utah, 1980; PhD, U. of California, Irvine, 1986.

Assistant Professors
Stark, Michael R. (2001) BS, Brigham Young U., 1992; MS, Idaho State U., 1994; PhD, U. of California, Irvine, 1998.
Sudweeks, Sterling (2001) BS, Brigham Young U., 1992; PhD, U. of Utah, 1997.

Part-Time Faculty
G. Merrill Webb, Duane R. Winden.

Emeriti
Allen, A. Lester (1954) BA, PhD, U. of California, Los Angeles, 1946, 1951.
Chapman, Arthur O. (1959) BA, Brigham Young U. 1941; MA, U. of Kansas, 1949; PhD, U. of Nebraska, Omaha, 1953.
Heninger, Richard W. (1966) BS, Brigham Young U., 1957; MS, PhD, Oklahoma State U., 1959, 1961.
Jaussi, August W. (1962) BS, U. of Idaho, 1953; MS, Brigham Young U., 1955; PhD, Oklahoma State U., 1960.
Smith, Lamont W. (1970) BS, Brigham Young U., 1960; MS, U. of Wisconsin, Madison, 1962; PhD, West Virginia U., 1970.

Plant and Animal Sciences

Von D. Jolley, Chair
275 WIDB, (801) 422-2760

College of Biology and Agriculture Advisement Center
380 WIDB, (801) 422-3042

Admission to Degree Program

All degree programs in the Department of Plant and Animal Sciences are open enrollment.

The Discipline

Disciplines in the Department of Plant and Animal Sciences focus on three of the great dilemmas facing mankind in the twenty-first century: harnessing biological technology to meet the needs of an expanding human population in the developing world; assessing and minimizing the impact of human activities on an increasingly vulnerable environment; and adapting urban landscaping to meet increasing water, space, and other resource limitations while enhancing the aesthetic quality of urban environments.

Majors offered provide a flexible education for directly entering the job market or preparing for professional schools in business, engineering, the health professions (medical and dental schools), landscape architecture, law, public administration, or science.

Career Opportunities

Bio-Agribusiness Management
This intercollege program involving the Marriott School of Management combines a strong science education with business fundamentals. The **biotechnology business emphasis** prepares students for management positions in the burgeoning agricultural biotechnology industry or for graduate study in the biological sciences, law, or business. The **crop management emphasis** prepares for employment in multiple agribusiness enterprises or for advanced degrees in business or law.

Biotechnology
The biotechnology major educates students in scientific principles and biotechniques used to genetically improve economically important plants and animals. This field holds tremendous promise for meeting the food and fiber needs of the developing world. Students are prepared for immediate employment or for graduate study in plant and animal biotechnology, molecular biology, genetics, or the health professions.

Environmental Soil Science
Students majoring in environmental soil science learn a broad combination of chemistry, engineering, geology, geography, and plant and soil sciences to help them solve environmental problems. They are prepared for graduate study and direct employment in fields dealing with assessing and remediating human-induced environmental impacts, as well as for careers in law, business, and the health professions.

Landscape Management
This program is accredited by the Associated Landscape Contractors of America (ALCA), the leading professional organization in landscape horticulture management. The major combines practice and instruction in horticultural science, business, and landscape design to prepare students for graduate studies in business, law, landscape architecture, and horticulture, or for direct employment as managers in the growing urban horticulture industry.

Plant Biology
Plant biology is an interdepartmental major sponsored cooperatively with the Integrative Biology Department. Students are prepared for a variety of graduate programs emphasizing science (e.g., agronomy, ecology/evolution, horticulture, and molecular biology/biochemistry), the health professions, law, and business.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS	Bio-Agribusiness Management
	Emphases:
	Biotechnology Business
	Crop Managmenet
BS	Biotechnology
BS	Environmental Soil Science
BS	Landscape Management
BS	Plant Biology

Students should visit the college advisement center for help or information concerning the undergraduate programs. Undergraduate advisement in major requirements is available from departmental faculty (assigned advisor).

Graduate Programs and Degrees

MS	Environmental Soil Science
MS	Genetics
MS	Plant Biology
PhD	Genetics
PhD	Plant Biology

For more information see the BYU 2003–2004 Graduate Catalog.

BS Bio-Agribusiness Management: Biotechnology Business Emphasis (61 hours*)

Major Requirements

1. Complete the following agribusiness management core courses:
   Acc 200.
   BusM 300, 488, 489.
   Econ 110, 210.
   OrgB 320.
   PAS 199R, 391R.
   Stat 221.
2. Complete one course from the following:
   BusM 371R, 380, 382.
3. Complete the following biotechnology business courses:
   Biol 120, 220, 240, 241, 340, 360.
   Chem 105, 106, 152, 281.
   InBio 370.
   PAS 265, 310R, 485, 487.

Recommended Courses

IAS 220, 420.
InBio 380.
PAS 282, 283, 305, 306, 390R, 440.
PDBio 562.

*Hours include courses that may fulfill GE or university requirements.

BS Bio-Agribusiness Management: Crop Management Emphasis (61 hours*)

Major Requirements

1. Complete the following agribusiness management core courses:
   Acc 200.
   BusM 300, 488, 489.
   Econ 110, 210.
   OrgB 320.
   PAS 199R, 391R.
   Stat 221.
2. Complete one course from the following:
   BusM 371R, 380, 382.
3. Complete the following crop management courses:
   Chem 105, 152.
   NDFS 330.
   PAS 100, 205, 282, 283, 301, 305, 331, 369, 431.

Recommended Courses

IAS 220, 420.
PAS 306, 390R, 440.

*Hours include courses that may fulfill GE or university requirements.

BS Biotechnology (60–62 hours*)

Major Requirements

1. Complete the following core courses:
   Biol 120, 220, 240, 241, 340, 360, 420.
2. Complete one course from the following:
   InBio 380.
   PAS 440.
3. Complete the following general core courses:
   Chem 105, 106, 107, 351, 352, 481.
   Math 119.
4. Complete the following biotechnology core courses:
   PAS 265, 310R, 494R.
5. Complete one course from the following:
   PAS 484, 485.
6. Complete one course from the following:
   PAS 486, 487.
7. Complete 11–12 hours of elective credit from the following:
   Biol 350, 421.
   Chem 482.
   InBio 230, 365, 370, 431, 432, 465.
   MMBio 221, 390R, 430, 441, 442, 490R.
   NDFS 330.
   PAS 100, 199R, 205, 282, 283, 301, 302, 305, 306, 331, 369, 390R, 431, 490, 525, 559, 570, 573R, 580.
   PDBio 562.
   Stat 221.

Recommended Courses

PAS 100, 282 (for plant biotechnology students).
PDBio 562 (for animal biotechnology students).
Phscs 105, 106 (107, 108) (for graduate school prepartion in biotechnology).

*Hours include courses that may fulfill GE or university requirements.

BS Environmental Soil Science (60–62 hours*)

Major Requirements

1. Complete the following environmental soil science core courses:
   Biol 120, 220, 350.
   PAS 282, 283, 303, 305, 490, 491R, 494R.
2. Complete the following supporting core courses:
   Chem 105, 106, 107.
3. Complete one course from the following:
   Math 112, 119.
   Stat 221.
4. Complete one of the following options:
   Either Phscs 105, 106.
   Or Phscs 121, 123.
5. Complete one course from the following:
   PAS 402, 511.
6. Complete a minimum of 18 hours from the following (see suggested tracks below):
   Biol 240, 241, 340, 360.
   CEEn 351, 550, 580.
   Chem 223, 351, 352, 353.
   Geog 212, 305, 310, 331, 412.
   Geol 111, 404, 435.
   InBio 215, 225.
   Math 113, 302, 303.
   MMBio 355.

PAS 101, 103, 306, 310R, 331, 390R, 402, 511, 514.
Phil 205.
VAStu 103.

Suggested Tracks That Prepare for Graduate Study

1. Environmental soil science:
   Math 112.
   Phscs 105, 106 or 112, 123.
   After consulting with a faculty advisor, complete 18 hours from the following:
   Chem 223, 351, 352, 353.
   Geog 212, 305, 310, 331, 412.
   Geol 111, 404, 435.
   InBio 215, 225.
   MMBio 355.
   PAS 306, 310R, 331, 402, 511, 514.
2. Landscape architecture:
   Phscs 105, 106.
   Stat 221.
   After consulting with a faculty advisor, complete 18 hours from the following:
   Geog 212, 310, 412.
   Geol 111, 435.
   PAS 102, 103, 306, 331, 402, 511, 514.
   VAStu 103.
3. Medicine:
   Math 119.
   Phscs 105, 106.
   After consulting with a faculty advisor, complete 18 hours from the following:
   Biol 240, 241, 340, 360.
   Chem 223, 351, 352.
   PAS 511, 514.
4. Law:
   Phscs 105, 106.
   Stat 221.
   After consulting with a faculty advisor, complete 18 hours from the following:
   Geog 310, 331.
   Geol 111, 435.
   InBio 215, 225.
   PAS 331, 402, 511, 514.
   Phil 205.
5. Environmental engineering:
   Math 112, 113, 302, 303.
   Phscs 121, 123.
   After consulting with a faculty advisor, complete 8 or 18 hours from the following:
   CEEn 351, 550, 580.
   Math 302, 303.
   PAS 306, 310R, 511, 514.

*Hours include courses that may fulfill GE or university requirements.

BS Landscape Management (62.5–63.5 hours*)

Major Requirements

1. Complete the following required departmental courses:
   PAS 100, 101, 103, 198R, 199R, 211, 212, 214, 282, 283, 301, 302, 319, 320, 331, 391R, 402, 431.
2. Complete the following required non-departmental courses:
   Acc 200.
   BusM 300, 488, 489.
   Chem 105.
   Econ 110.
   InBio 230.
   ISys 100.
   MCom 100.
3. Complete one course from the following:
   InBio 235, 310.
   PAS 112, 210, 213.

Recommended Courses

A management minor is *strongly* recommended.

Completion of the following courses (some listed above) will meet the requirements for this minor:
Acc 200.
BusM 300, 371R, 489.
Econ 110.
Math 110.
OrgB 320.
Stat 221,

The following courses are also suggested:
BusM 372.
TMA 150.

The ability to speak Spanish is highly valuable to those pursuing careers in horticulture management. The following courses are therefore recommended:
Span 101, 102, 201.

For students planning to pursue a master's degree in landscape architecture (MLA), the following courses are also recommended:
Biol 350.
CM 105.
Geog 212.
PAS 380.
VAStu 103.

For students planning to pursue a master's degree in horticulture science (MS), the following courses are recommended:
Biol 350.
Chem 106, 107, 351, 352, 481.
Math 119 or Stat 221.
Phscs 105, 106.
PAS 305, 369, 390R, 440, 494R, 511.

*Hours include courses that may fulfill GE or university requirements.

BS Plant Biology (60–66 hours*)

Major Requirements

1. Complete the following core courses:
   Biol 120, 220, 240, 241, 340, 350, 360, 420.
2. Complete the following:
   Chem 105, 106, 107.
3. Complete one of the following options:
   Either Chem 152, 281.
   Or Chem 351, 352, 481.
4. Complete one course from the following:
   Math 112, 119.
   Stat 221.
5. Complete the following major core courses:
   InBio 230.
   PAS 282, 283, 440.
6. Complete a minimum of 12 hours from the following (see the suggested tracks below):
   Chem 482.
   InBio/PAS 265.
   InBio 310, 431, 432, 433, 434.
   PAS 301, 302, 303, 305, 306, 331, 369, 486.

7. Complete an additional 5–6 hours from the following list or from item 6 above:
   InBio 341, 351, 355, 356, 416, 441, 450.
   PAS 198R, 199R, 210, 310R, 402, 431, 485, 494R.

Suggested Tracks That Prepare for Graduate Study

1. Agronomy:
   Chem 105, 106, 107, 351, 352.
   PAS 303, 305, 306, 331, 369, 431.
   Stat 221.
   Recommended additional courses:
   Chem 481.
   Phscs 105, 106.
2. Plant molecular/Cell biology/Biochemistry:
   Chem 105, 106, 107, 351, 352, 481, 482.
   InBio 431, 432.
   InBio/PAS 265.
   PAS 484; 494R or InBio 490R (2 hours minimum).
   Recommended additional courses:
   PAS 310R.
   Phscs 105, 106.
   Competency in both calculus and statistics.
3. Plant ecology and evolution:
   Chem 105, 106, 107; 152, 281, or 351, 352.
   InBio 310, 355, 356, 431, 432, 433, 434.
   Recommended additional courses:
   Phscs 105, 106.
   Competency in both calculus and statistics.
4. Horticultural science:
   Chem 105, 106, 107, 351, 352.
   InBio 431.
   PAS 301, 302, 305, 306, 331, 369, 431.
   Recommended additional courses:
   Chem 481.
   Phscs 105, 106.
   PAS 198R or 199R.

*Hours include courses that may fulfill GE or university requirements.

Plant and Animal Sciences (PAS)

Undergraduate Courses

100. Living With Plants. (3:3:0) F, W, Sp
Physiological, morphological, and ecological characteristics of plants used for food, fiber, and aesthetic enhancement.

101. Landscape Design Graphics. (2:2:0) W
Communication through descriptive drawing and professional plan graphics: plan views, elevation, color, and computer-aided design.

103. Residential Landscape Design. (3:3:0) F, W
Design and composition as applied to development of residential grounds.

112. Floral Design. (3:2:2) F, W, Sp
Principles of design and practical methods of arranging flowers and other plant materials for home and professional use. Fee.

198R. BYU Grounds Workship. (0.5:0:0) F, W, Sp, Su
Multiple horticultural experiences through collaboration with BYU Grounds.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: consent of both department chair and cooperative education coordinator.
Work experience evaluated by supervisor and posted on student's transcript.

203. (PAS-NDFS) International Agriculture and Nutrition. (2:2:0) W
Causes of malnutrition and agricultural solutions.

205. World Food Crops. (3:3:0) F, W Recommended: Biol 100.
World food crops and their utilization by man; emphasizes origin, biology, ecology, production, and importance of crops as human food sources.

210. Herbaceous Plants. (2:2:0) F
Identification and landscape use of flowers and groundcovers.

211. Landscape Structures. (2:2:0) F 1st blk.
Theory and mechanics of hardscape design and construction.

212. Landscape Laboratory. (1:0:2) F 2nd blk. Prerequisite: PAS 211.
Working methods of the landscape industry: irrigation, equipment, and materials.

213. Interior Landscapes. (2:2:0) F Prerequisite: PAS 103.
Identification and culture of indoor plants; design and management of interior landscapes.

214. Landscape Bidding and Estimating. (2:2:0) W Prerequisite: Math 110 or equivalent; PAS 103.
Competitive bidding strategies, quantity takeoffs, bid analyses for landscape construction and maintenance.

265. (PAS-InBio) Genomics. (3:2:1) F Prerequisite: bioinformatics major status or Biol 120.
Introduction to genomics and genome projects (human, plant, bacterial, yeast, parasites). Introduction to genes and genomes; computational and statistical approaches for analyzing genomic data, including genome sequencing and annotation, gene expression and the transcriptome, proteomics and functional genomics, and genetic variation and SNPs.

282. Introduction to Soil Science. (3:3:0) F, W, Sp Prerequisite: concurrent enrollment in PAS 283 for all majors. Recommended: one semester of college chemistry and Math 110.
Physical, chemical, and microbiological properties of soils that affect plant growth in natural, agricultural, and urban environments.

283. Introduction to Soil Science Laboratory. (1:0:3) F, W, Sp Prerequisite: PAS 282 or concurrent enrollment.
Laboratory techniques in determining soil physical, chemical, and fertility properties.

301. Plant Growth and Reproduction. (2:2:0) W Prerequisite: PAS 100 or equivalent.
Scientific principles of plant propagation by seeds, cuttings, budding and grafting, and tissue culture.

302. Plant Growth and Reproduction Laboratory. (1:0:2) W Prerequisite: PAS 100 or equivalent; concurrent enrollment in PAS 301.
Laboratory and greenhouse techniques in plant propagation by seeds, cuttings, budding, and grafting.

303. Soil Genesis and Taxonomy. (3:2:3) F Prerequisite: PAS 282. Recommended: Geol 111.
Genesis and taxonomy of world soils, including field description and lab characterization of soil profiles. Field trips required.

305. Soil Fertility and Plant Nutrition. (3:3:0) W Prerequisite: PAS 100 or equivalent, PAS 282, Chem 105 (or 101), Math 110 or equivalent.
Nutrient-supplying power of soils, recognition of nutrient deficiencies/toxicities, adaptation of plants to nutritional stresses, and safe use of fertilizer and soil amendments.

306. Soil Fertility and Plant Nutrition Laboratory. (1:0:3) W Prerequisite: PAS 305 or concurrent enrollment.
Laboratory for studying nutrient-supplying power of soils, nutrient deficiencies and toxicities, and plant adaptation to nutritional stresses.

310R. Mentored Laboratory Techniques. (1–3:0:Arr. ea.) F, W, Sp, Su Prerequisite: Chem 107 or equivalent; instructor's consent.
Juniors or seniors in plant and animal sciences majors receive mentored training in plant, soil, and/or biotechnology lab instrumentation and protocols.

319. Turf Science. (2:1:2) F Prerequisite: PAS 100.
Management of turf relative to climate, soil, and use on the golf course, park, and private areas.

320. Arboriculture. (3:3:0) W Prerequisite: PAS 100, 282. Recommended: InBio 205.
Biology and culture of woody plants for use in urban landscapes.

331. Science of Plant Pest Control. (3:3:0) W Prerequisite: PAS 100, 282; or equivalents.
Identifying important insect, disease, and weed pest problems. Pest classification, biology, and methods of control.

369. Science of Plant Production. (4:4:0) F Prerequisite: PAS 100, 282 or equivalent.
Scientific principles of crop production related to agronomic and horticultural plants, including relationship of management principles and physiological processes in plants.

380. Plant Community Design. (2:2:0) W Prerequisite: PAS 101, 103, InBio 210.
Design and ecology of thematic plant communities.

390R. Special Topics in Plant and Animal Sciences. (1–3:Arr.:0 ea.) F, W
Various topics of importance in plant and animal sciences.

391R. Careers in Plant and Animal Sciences. (1:1:0 ea.) F For sophomores and juniors.
Current information on internships, career options, and employment preparation skills in the plant and animal sciences.

402. Urban Soils and Water. (4:4:0) F Prerequisite: PAS 100, 282.
Principles of water management, soil physics, and soil fertility used in a problem-solving environment addressing current challenges in managing soils and water in the urban landscape.

431. Integrated Management of Plant Pests. (3:2:3) F Prerequisite: PAS 100, 282, 331.
Diagnosing, identifying, and managing weed, insect, and disease problems in plants. Integrated pest management solutions. Proper pesticide management and safety.

440. Plant Physiology. (3:3:0) F, W Prerequisite: GE Biological Science requirement; college chemistry. Recommended: Chem 281; or 351, 352.
Photosynthesis, respiration, water relations, mineral nutrition, growth of flowering plants.

484. Animal Breeding and Genetics. (2:2:0) F Recommended: Biol 372.
Exploring animal breeding and genetics.

485. Plant Breeding and Biotechnology. (2:2:0) F Prerequisite: Biol 372.
Introduction to modern plant improvement through selective breeding and application of plant biotechnology.

486. Plant Cell Biology. (2:2:0) W Prerequisite: Biol 360.
Aspects of cell biology unique to plant organisms, emphasizing current research through study of published scientific literature.

487. Readings in Animal Biotechnology. (2:2:0) W Prerequisite: Biol 240.
Discussion of assigned literature in animal biotechnology.

490. Case Studies. (2:1:2) F alt. yr. Prerequisite: PAS 282.
Contemporary agricultural and environmental problems using decision case studies dealing with environmental technology issues and analysis.

491R. Undergraduate Seminar. (1:1:0 ea.) W
Current information in the plant and animal sciences.

494R. Mentored Learning Experience. (1–6:Arr.:Arr. ea.) F, W, Sp, Su
Topics vary.

500-Level Graduate Courses (available to advanced undergraduates)

511. Soil Physics. (3:3:0) W even yr. Prerequisite: PAS 282, Chem 105, Math 112 or 119; or equivalents. Recommended: Phscs 105 or 121, or equivalent.
Physical relationships of water, heat, and gases in soils; physical and chemical properties of clays. Mathematical modeling of physical properties and transport processes.

514. Soil Microbiology. (2:2:3) W odd yr. Prerequisite: Chem 106, 107; or equivalents.
Ecology and role of soil microorganisms in nutrient cycling, decomposition of organic matter and waste materials, and degradation of agricultural chemicals in soil.

520. Saline and Sodic Soils. (3:2:3) F even yr. Prerequisite: PAS 305, Chem 105, 106, 107; or equivalents.
Physical and chemical properties of saline and sodic soils and irrigation waters—their diagnosis, reclamation, and management for sustainable crop production.

525. Plant Development. (3:3:0) F odd yr. Prerequisite: Biol 360 or equivalent; PAS 486 or equivalent.
Molecular and genetic interactions in plant development.

540R. Topics in Plant Physiology. (3:3:0 ea.) On dem. Prerequisite: PAS 440 or equivalent.
Topics in advanced plant physiology.

559. Plant Molecular Breeding. (3:2:3) W even yr. Prerequisite: PAS 265, 485, Biol 372; or equivalents.
Molecular genetic methods applied to improvement of economically important plants.

560. Soil and Plant Analysis. (3:2:4) W Prerequisite: PAS 282 or equivalent.
Laboratory chemical analysis of soils and plant materials in soil and plant research.

570. Analysis of Complex Genomes. (3:3:0) F Prerequisite: Biol 372.
Quantitative genetic analysis of traits in plants and animals.

573R. Cytogenetics. (3:2:3 ea.) F even yr. Prerequisite: PAS 265, 485, Biol 372; or equivalents.
Chromosome structure and function; classical and molecular cytological methods of chromosome and genome analysis.

580. Plant Transformation. (2:1:3) W even yr. Prerequisite: Biol 360, PAS 486; or equivalents.
Theory and methods of plant transformation.

595. Experimental Design and Data Analysis. (2:2:0) W Prerequisite: Stat 221 or 510 or equivalent.
Planning, experimental design, and techniques of analysis in research.

598R. Advanced Topics in the Plant and Animal Sciences. (1–3:Arr.:0 ea.) On dem.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Animal and Veterinary Sciences (AVS)

Note: *The following courses will be taught as indicated to allow previously enrolled veterinary technology/nursing students to complete their degree. Students interested in preveterinary science should consult the College of Biology and Agriculture section of this catalog.*

For students with a declared major (prior to fall 2003) in preveterinary science or animal biotechnology, core course substitutions should be made in consultation with your advisor.

Undergraduate Courses

250. Applied Office Procedures. (1:1:0) F
Veterinary terminology, animal breed identification, client relations, and office procedures for the veterinary technician.

306. Applied Nutrition, Growth, and Products. (4:4:1) F Prerequisite: AVS 206, 212.
Feeding systems and management used for various livestock species, advanced growth aspects, and subsequent animal products.

352. Veterinary Nursing Laboratory Methods. (3:2:2) F
Laboratory procedures for veterinary technicians; specimen collecting, handling, processing, and evaluating.

353. Diseases of Companion and Laboratory Animals. (2:2:0) W
Emphasis on infectious diseases of dogs and cats, rabbit and rodent husbandry, pet health and care.

355. Veterinary Diagnostic Imaging. (2:1:3) F Prerequisite: AVS 212, 251; 391 or concurrent enrollment.
Application of radiology, ultrasound, endoscopy, and electrocardiography, as it pertains to the veterinary technologist.

356. Veterinary Pharmacology. (2:1:3) F Prerequisite: concurrent enrollment in AVS 355.
Application of the drugs commonly used in veterinary medicine with emphasis on calculating dosages, mechanisms of action, toxicity and interactions.

357. Veterinary Anesthesiology. (2:1:3) W Prerequisite: AVS 356.
Application of injectables and inhalant anesthetic agents with emphasis on preanesthetic agents, monitoring the patient, regulation of controlled substances, and maintenance of equipment.

358. Veterinary Surgical Assistance. (2:1:3) W Prerequisite: concurrent enrollment in AVS 357.
Surgical technology, operating room etiquette, instrument identification, surgical preparation and sterilization techniques for the veterinary technologist.

390R. Veterinary Nursing Preceptorship. (1–4:0:Arr. ea.) F, W, Sp, Su Prerequisite: AVS 352, 353, 355, 356, 357, 358.
Supervised on-the-job training in a veterinary clinic.

450. Senior Clinics. (3:1:6) F, Sp Prerequisite: AVS 352, 353, 358.
Advanced techniques for the veterinary technologist emphasizing equine, dairy, beef, sheep, swine, and companion animals.

451. Senior Preceptorship. (3:1:6) F, W, Su Prerequisite: AVS 450.
Advanced training in either a clinical setting, research facility, or diagnostic laboratory.

Plant and Animal Sciences Faculty

Professors
Christensen, Allen C. (2001) BS, Brigham Young U., 1957; MS, U. of California, Davis, 1960; PhD, Utah State U., 1979.
Crookston, R. Kent (1998) BS, Brigham Young U., 1968; PhD, U. of Minnesota, 1972.
Fairbanks, Daniel J. (1988) BS, Brigham Young U., 1982; MS, U. of Minnestoa, 1985; PhD, U. of Arizona, 1988.
Horrocks, R. Dwain (1978) BS, Brigham Young U., 1962; MS, PhD, Pennsylvania State U., 1964, 1967.
Jeffery, Larry S. (1984) BS, Utah State U, 1962; PhD, North Dakota State U., 1966.
Jolley, Von D. (1977) BS, Brigham Young U., 1970; MS, PhD, Iowa State U. of Science and Technology, 1974, 1976.
Kellems, Richard O. (1986) BS, Brigham Young U., 1969; MS, PhD, Oregon State U., 1975, 1976.
Nelson, Sheldon D. (1972) BS, Brigham Young U., 1967; PhD, U. of California, Riverside, 1971.
Smith, Bruce N. (1974) BS, MS, U. of Utah, 1959, 1962; PhD, U. of Washington, 1964.
Terry, Richard E. (1980) BS, Brigham Young U., 1972; MS, PhD, Purdue U., 1974, 1976.
Williams, C. Frank (1971) BS, MS, Utah State U., 1967, 1968; PhD, Oregon State U., 1971.

Associate Professors
Allen, Phil S. (1990) BS, MS, Brigham Young U., 1983, 1985; PhD, U. of Minnesota, 1990.
Jellen, Eric N. (1996) BS, Brigham Young U., 1986; MS, PhD, U. of Minnesota, 1988, 1992.
Maughan, Peter J. (2002) BS, MS, Brigham Young U., 1990, 1991; PhD, Virginia Polytechnic Inst. and State U., 1994.
Stevens, Mikel R. (1994) BS, MS, Brigham Young U., 1977, 1983; PhD, U. of Arkansas, 1993.

Assistant Professors
Campbell, Emily M. G. (2003) BS, Brigham Young U., 1994; PhD, Texas A&M U., 1998.
Coleman, Craig E. (1996) BS, MS, Brigham Young U., 1985, 1987; PhD, The Pennsylvania State U., 1992.

Senior Scientist
Webb, Bruce L. (1978) BS, MS, Brigham Young U., 1972, 1978.

Part-Time Faculty
Hunter, Norah T. (1983) BS, MS, Brigham Young U., 1982, 1992.

Visiting Associate Professor
Garrett, Sandra L. (2000) DVM, Mississippi State U., 1987.

Adjunct Professors
DeGering, Moody, Walker, Wallace

Emeriti
Allred, R. Chase (1955) BS, Brigham Young U., 1948; MS, Kansas State U., 1949; PhD, U. of Nebraska, Lincoln, 1952.
Andersen, William R. (1966) BS, MS, Utah State U., 1956, 1958; PhD U. of California, Davis, 1963.
Ellsworth, D. Delos (1975) BS, Arizona State U., 1958; MS, Cornell U., 1959.
Gardner, Robert W. (1966) BS, Utah State U., 1958; MS, PhD, Cornell U., 1962, 1964.
Hoopes, Keith H. (1957) BS, Utah State U., 1957; DVM, Washington State U., 1956.
Orme, Leon E. (1969) BS, Utah State U., 1953; MS, U. of Tennessee, Knoxville, 1955; PhD, Michigan State U., 1958.
Pace, Ronald T. (1961) BS, MS, Brigham Young U., 1955, 1958.
Park, Robert L. (1965) BS, Brigham Young U., 1956; MS, PhD, Cornell U., 1958, 1962.
Robison, Laren R. (1971) BS, MS, Brigham Young U., 1958, 1959; PhD, U. of Minnesota, Minneapolis, 1962.
Shumway, R. Phil (1949) BS, Utah State U., 1947; MS, U. of Minnesota, Minneapolis, 1949; PhD, Utah State U., 1959.
Shupe, G. Merrill (1988) DVM, Washington State U., 1956.
Stutz, Howard C. (1952) BS, MS, Brigham Young U., 1940, 1951; PhD, U. of California, Berkeley, 1956.
Vallentine, John F. (1968) BS, Kansas State U., 1952; MS, Utah State U., 1953; PhD, Texas A&M U., 1959.
Wallentine, Max V. (1962) BS, Utah State U., 1955; MS, PhD, Cornell U., 1956, 1960.
Whitton, Leslie (1962) BS, Utah State U., 1949; MS, U. of California, Davis, 1953; PhD, Cornell U., 1964.

Polish

See Germanic and Slavic Languages.

Political Science

Kelly D. Patterson, Chair
745 SWKT, (801) 422-3423

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of Political Science are open enrollment.

The Discipline

Politics extends far beyond the immediate concerns of politicians or pollsters; it is essential to the human condition. It involves fundamental choices concerning our life in communities—whether locally, nationally, or globally. Without politics there could be only chaos and conflict. With politics there is the chance for order and thus the opportunity to seek prosperity and fulfillment. Often conflictual but just as often cooperative, politics reflects our basic needs and interests, our highest aspirations, and the often harsh requirements of power.

Political science involves this full range of inquiry, including questions of "who gets what," questions of the best or most just political order, and questions of the nature, uses, and abuses of power. It uses methods ranging from statistically analyzing quantifiable data to comparing institutions or systems historically to reflecting on influential texts. Political scientists ask such questions as "Why is campaign finance reform so difficult?" "Why did the Berlin Wall fall?" "Were the Athenians justified in condemning Socrates to death?"

Since we are all significantly shaped by the assumptions and practices of the institutions we inhabit, political science helps us to understand not only our world but ourselves. If we choose to ignore politics, it doesn't go away; we just lose our ability to influence our communities for the better.

Career Opportunities

The Political Science Department offers an undergraduate degree in political science for students who are preparing for graduate study in related fields, professional degrees (law or business), or a wide variety of public service occupations, or for liberal arts students who are interested in an undergraduate major that focuses on challenging questions facing modern society.

Students may emphasize the subfields of American politics, comparative politics, international politics, political philosophy, or public policy.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Political Science
Minors	Political Science
	Political Science Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

General Information

All political science students should enrich their undergraduate education and enhance their career prospects with an off-campus internship experience. Several high-quality opportunities are available for which credit may be earned toward the major or minor.

Washington Seminar. Students from any academic discipline spend a semester or term in Washington, D.C., working in government, business, communications, or the arts. Complimenting course work involving readings and briefings on contemporary national issues is part of the curriculum. From 6 to 12 hours of upper-division credit may be earned.

Utah State Legislature Internship. During each winter semester students from any academic discipline may work as interns in the Utah State Legislature. Students interested in legislative and public policy processes will particularly benefit from the experience. Complimenting course work on state government can be taken in conjunction with the internship. From 6 to 12 hours of upper-division credit may be earned.

State and Local Government Internships. Throughout the year students may intern with city, county, or state governments, as well as the district offices of U.S. senators and representatives (availability of positions may vary). From 3 to 6 hours of upper-division credit may be earned.

International Internships. The International Internship Program at the David M. Kennedy Center places students in a variety of internships with foreign governments and international institutions.

Requirements

1. Internships should be completed during the junior or senior year. Prior to the internship students should have completed PlSc 110 and 200.
2. Students must have a cumulative grade point average of 2.7 or better (Washington Seminar requires a 3.0) and be in good academic standing. Strong research and writing skills are important qualifications.
3. All internship programs have a strong and complimenting academic component to help students gain the most from their experience. Students completing any of the above internships must be enrolled for credit.

BA Political Science (46 hours*)

The Discipline

See general description of the discipline.

Career Opportunities

Career choices open to graduates in political science include careers in law, teaching, business, journalism, the media, and libraries, as well as with interest groups and associations. In addition, majors are also placed with federal, state, and local governments and are found in elective politics. A number of these options do require additional graduate training.

Major Requirements

1. At least 27 hours of political science courses must be taken in residency at BYU (BYU Independent Study courses do not meet this requirement).
2. PlSc 101, 102, and 297 do not count toward the major or minor.
3. Only 6 hours of 298R and 399R combined may count toward the major.
4. No cooperative education (internship) credit from other universities or colleges will be accepted toward the major.
5. Majors are strongly encouraged to take Phil 105 instead of Engl 115 to complete the GE First-Year Writing requirement.
6. PlSc 200 is prerequisite to all upper-division courses and must be taken no later than the sophomore year.
7. Complete one course from the following:
   Econ 110.
   PlSc 205

   Note: Students considering graduate work in public policy or political science are encouraged to take both courses.
8. Complete two of the following foundation courses before higher-numbered courses (they do not need to be taken in order):
   PlSc 110, 150, 170.

   Note: If students do not take one of these three foundation courses, they must take a corresponding upper-division elective course. For example, if you do not take PlSc 110, you must take one course selected from PlSc 310–319R, 320, 321, 322, or 410. If you do not take PlSc 150, you must take one course selected from PlSc 341–349R, 350–359R, 444, or 450–458. If you do not take PlSc 170, you must take one course selected from PlSc 370–379R, 380–388, or 470–474.
9. Complete one of the following foundation courses before higher-numbered courses:
   Phil 202.
   PlSc 202.

   Note: If students do not take PlSc 201 or Phil 201, they must take a corresponding upper-division elective course selected from PlSc 300–309, 400–409, or 322, 334, 336, 364, 374, 473.
10. Complete the following methodology course:
    PlSc 200.

    Note: PlSc 200, along with a capstone seminar, fulfills the GE Advanced Writing requirement.
11. Complete one of the following theory courses during the junior year (note prerequisites in course descriptions):
    PlSc 300, 310, 330, 350, 370.
12. Complete 24 additional hours of political science electives. Only one 100-level course and two 200-level courses may be counted.
13. Complete one of the following capstone seminars during the senior year. A completed capstone paper with at least a C– grade is required to receive a final grade in all capstone classes and fulfill the GE Advanced Writing requirement (note prerequisites in course descriptions):
    PlSc 400, 410, 430, 450, 470.
14. All students are strongly encouraged to complete an internship with one of the department's programs, such as the Washington Seminar, Utah State Legislature, or local government. Up to 6 hours of credit earned from an internship may be counted toward the major.
15. Students who plan no formal education beyond the bachelor's degree should take a double major or develop adequate skills through other courses that will enhance their employment opportunities. Consult the college advisement center or department Web site.

    Students who plan to seek MA or PhD degrees are strongly encouraged to strengthen their quantitative and analytical skills by taking PlSc 328 and other quantitative courses taught through the Statistics Department. These students should consult with faculty about other skills that specific graduate programs might require.
16. Students scoring a 5 on the American Government and/or Comparative Government AP exams may substitute AP credit for PlSc 110 or PlSc 150, respectively. However, they are required to take at least one upper-division elective in each subfield in which they substitute AP credit for American Government and Politics or Comparative Government and Politics.

*Hours include courses that may fulfill GE or university requirements.

Minor Political Science (21 hours*)

Minor Requirements

1. Complete the following:
   PlSc 110, 150, 170, 202.
2. Complete three additional upper-division courses.
3. PlSc 101, 102, 297 cannot be counted toward the minor.
4. Students scoring a 5 on the American Government and/or Comparative Government AP exams may substitute AP credit for PlSc 110 or PlSc 150, respectively. However, they are required to take at least one upper-division elective in each subfield in which they substitute AP credit for American Government and Politics or Comparative Government and Politics.

*Hours include courses that may fulfill GE or university requirements.

Minor Political Science Teaching (21 hours*)

Minor Requirements

1. Complete the following:
   PlSc 110, 150, 170, 202.
2. Complete three additional upper-division courses.
3. PlSc 101, 102, 297 cannot be counted toward the minor.
4. Students scoring a 5 on the American Government and/or Comparative Government AP exams may substitute AP credit for PlSc 110 or PlSc 150, respectively. However, they are required to take at least one upper-division elective in each subfield in which they substitute AP credit for American Government and Politics or Comparative Government and Politics.

*Hours include courses that may fulfill GE or university requirements.

Political Science (PlSc)

Undergraduate Courses

101. Freshman Seminar. (1:1:0)
Academic expectations in the major and in higher education; review of campus resources; meetings with faculty.

102. Review of U.S. Government for Washington Seminar Students. (1:1:0)
Review of the essentials of American national government for nonmajors participating in the Washington Seminar. May not count toward a political science major or minor.

110. American Government and Politics. (3:3:0) Honors and Independent Study also.
Origin and development of federal Constitution; national, state, and local governments and politics.

150. Comparative Government and Politics. (3:3:0) Honors also.
Patterns of European, Asian, Latin American, and other political systems.

170. Introduction to International Politics. (3:3:0)
Basic forces, practices, institutions, and foreign policies of major powers; problem areas in international politics.

200. Political Inquiry. (4:3:1)
Methodology of political science, including theory and techniques of qualitative and quantitative research design. Prerequisite to all upper-division courses.

201. Western Political Heritage 1. (3:3:0) Honors also.
Western civilization from Greek antiquity to Renaissance, primarily from perspective of political philosophy and scriptures; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

202. Western Political Heritage 2. (3:3:0) Honors also.
Western civilization from Renaissance to present, primarily from perspective of political philosophy; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

205. Rationality and Politics. (3:3:0)
Individuals' rational, strategic choices relative to the actions of political institutions, including inherent problems in collective decision making and democratic government.

297. Washington Seminar Preparation. (1–2:Arr.:0)
Preparatory seminar for students who will be participating in the Washington Seminar.

298R. Political Simulation. (1–3:Arr.:0 ea.)
Utah Intercollegiate Assembly or Model United Nations.

300. Contemporary Political Theory. (3:3:0) Prerequisite: PlSc 201, 202; or Phil 201, 202.
History of political science, including the moral and ethical dimensions of politics.

301. Philosophy of the Social Sciences. (3:3:0)
Comparative analysis of the philosophy of scientific and normative inquiry.

308. Theories of Human Freedom. (3:3:0)
Scope of human freedom at the metaphysical, individual, social, and political levels.

309R. Topics in Political Philosophy. (3:3:0 ea.)

310. Theories of American Politics. (3:3:0) Prerequisite: PlSc 110.
Development of political science as a discipline in America; fundamental American political thought; and major theories and approaches used to explain American politics.

311. State and Local Government and Politics. (3:3:0)
Independent Study also. Prerequisite: PlSc 110.
Relation of state and national governments, forms of state governments and politics, types of municipal governments and their operation.

313. Public Power of Interest Groups. (3:3:0)
Group theory and pluralism; private influence of public decisions, private performance, and enforcement of public functions; pressure group tactics; organization and function of interest groups.

314. The United States Presidency. (3:3:0)
Presidential power in the United States, focusing on major roles of the American presidency.

315. Congress and the Legislative Process. (3:3:0) Prerequisite: PlSc 110.
Election process; structure, organization, and procedures of legislative bodies; relations with pressure groups, the president, and executive branch.

316. American Political Parties. (3:3:0)
Electoral and policy-making roles of American political parties today and their future in American politics.

317. Public Opinion and Voting Behavior. (3:3:0)
Relationship between attitudes, opinion, and voting behavior in American politics and institutions.

318. Campaigns and Elections. (3:3:0)
Analyzes electoral process in the United States, including history, significance in governance, campaign strategy, finance, media role, etc.

319R. Topics in American Government and Politics. (1–3:3:0 ea.)

320. American Politics Through Literature. (3:3:0)
American politics through the novel and other literary works. Developing political concepts and themes that come from significant political novels.

321. The Media in American Politics. (3:3:0)
News media's role in processes of American politics, including electoral process, legislative process, and public policy-making.

322. Principles and Issues of the Founding of the American Republic. (3:3:0)
Basic principles and issues underlying the founding of the American republic.

328. Advanced Methods of Political Analysis. (4:3:1) Prerequisite: PlSc 200.
Quantitative techniques in political research.

329R. Topics in Political Behavior. (3:3:0 ea.)

330. Theories of Public Policy. (3:3:0) Independent Study also. Prerequisite: Econ 110, PlSc 110, 200.
Major theories used in assessing public policies, including policy formation, interaction of politics and economics, institutions of policy making, and policy.

331. Public Policy Process. (3:3:0)
Needs and demands for public action on policy issues; organization of public support; processes and problems of decision making in public policy.

333. Politics of Bureaucracy. (3:3:0)
Theory and nature of bureaucracy; sources of power; political executives; staffs and agency personnel; conflicts with elected officials; public interest and bureaucratic control.

334. Public Ethics. (3:3:0)
Sources of values, areas of conflict with government policy, means of value accommodation.

336. Government and Religion. (3:3:0)
Christian-Hebraic concepts of state. American experience with church-state relations (First Amendment problems). Policy issues of concern to contemporary religions.

339R. Topics in Public Policy. (3:3:0 ea.)

341. Western European Politics. (3:3:0) Prerequisite: PlSc 150.
Politics and policy in western Europe. State-building, party systems, nationalism, and cooperation among advanced industrial countries in comparative, historical perspective. Social and Christian democracy; European Union.

344. Comparative Political Economy. (3:3:0) Prerequisite: PlSc 150.
Overview of political economy from a comparative perspective. Classic theorists (Smith, Marx, Schumpeter, etc.); classic questions (industrialization, national economic policy, property, globalization, law, and economics).

347. Russian Politics. (3:3:0)
Politics of the Soviet Union and its successor states; Communist system of government; Gorbachev reforms; disintegration of the USSR and evolution of a new political system.

348. Korea, Taiwan, and South East Asian Politics. (3:3:0)
Comparative analysis of political developments in key nations of East and Southeast Asia, including regional relationships.

349R. Topics in Politics. (1–3:3:0 ea.)

350. Theories of Comparative Politics. (3:3:0) Prerequisite: PlSc 150.
Selected issues of comparative politics such as crisis and discontinuity; development; political infrastructure (e.g., political culture and social structure); political institutions.

351. British Government and Politics. (3:3:0)
Examination of the origin and contemporary operation of British political institutions as they relate to British society.

352. African Politics. (3:3:0)
Processes of change and development of nation states; African regionalism and relations with other nations; contemporary political issues.

353. China: Government and Politics. (3:3:0)
Structure and behavior of politics; contemporary problems. Also for Asian Studies majors.

354. Japan: Government and Politics. (3:3:0) For both political science and Asian Studies majors.
Structure and behavior of politics; contemporary problems.

355. Canadian Government and Politics. (3:3:0)
Growth and development of Canada and its government; Canada's role in the contemporary world.

357. Middle East: Political Systems. (3:3:0)
Social, philosophical, and religious impact on Middle East political institutions in an era of modernization and conflict.

358. Politics and Society in Latin America. (3:3:0)
Conceptual and contemporary issues in Latin America's search for political order and economic development.

359R. Topics in Comparative Politics. (3:3:0 ea.)

360. Constitutional Law—American Federal System. (3:3:0)

361. Constitutional Law—Rights and Immunities. (3:3:0)

364. Jurisprudence. (3:3:0)
Problem approach to ancient and modern legal philosophies, emphasizing the nature of justice and the relation of law to morality.

369R. Topics in Law and Justice. (1–3:3:0 ea.)

370. Theory of International Relations. (3:3:0) Prerequisite: PlSc 170, 200.
Most influential traditions of thought in international relations; includes realism, idealism, Marxism, neorealism, complex interdependence, etc.

371. Foreign Policy Analysis. (3:3:0) Prerequisite: PlSc 200, 370.
Survey of research regarding multiple levels of foreign policy analysis: individual, group, bureaucratic, societal, economic, systemic.

372. International Political Economy. (3:3:0)
Political implications of international trade, investment, and monetary policies within an increasingly interdependent global context; transnationalism.

373. International Law. (3:3:0) Prerequisite: PlSc 170, 200.
Nature and function of international law; recognition, succession, jurisdiction rights, and immunities of states; nationality and jurisdiction over nations.

374. Ethics and International Affairs. (3:3:0) Prerequisite: PlSc 200.
Ethical considerations in study and practice of international politics. Realism, idealism, and other theories of state behavior subjected to ethical standards.

375. International Organizations. (3:3:0)
International institutions; transnational relations; rise of newer political organizations: League of Nations, United Nations, European communities, world religions, multinational corporations, terrorist groups, global regimes.

376. U.S. Foreign Policy. (3:3:0)
Formation, implementation, analysis, and criticism of themes in American foreign policy.

377. National Security Affairs. (3:3:0)
Foreign policy, defense strategy, and intelligence security affairs.

378. International Conflict. (3:3:0) Prerequisite: PlSc 150 or 170.
Causes of war; alliances and empires; military innovation; civil-military relations; fungibility of forces; terrorism; security studies methods; use and misuse of history.

379R. Topics in International Relations. (1–3:3:0 ea.)

380. International Relations of Latin America. (3:3:0)
Factors that affect foreign relations of Latin American countries, including the U.S. role, emphasizing intervention, democracy, development, and trade.

381. International Relations of the Near East. (3:3:0)
Interregional relations and conflicts including foreign policy, political economics, Arab nationalism, processes of political change, new alliances, and superpower relations in Near East and North Africa.

382. International Relations of North America. (3:3:0)
Examination and analysis of factors that affect foreign relations of Canada, U.S., and Mexico, emphasizing trade, security, migration, environment.

383. Russian Foreign Policy. (3:3:0)
Patterns, trends, and processes in Soviet foreign policy, 1917 to 1991; emerging foreign policy of post–Soviet Russia and the Commonwealth of Independent States.

385. International Relations of Asia. (3:3:0)
Foreign policies and international relations of China, Japan, and Northeast and Southeast Asia; historical and contemporary review and analysis.

386. Japanese Foreign Policy. (3:3:0)
Process and outcomes of Japan's foreign policy; analysis of its relations with other nations in a historical and contemporary setting.

388. Chinese Foreign Policy. (3:3:0)
Structure and process of foreign policy of the People's Republic of China.

391. Advanced Seminar on Current Issues. (3:3:0) For students interning in Washington, D.C. Prerequisite: acceptance to Washington Seminar.
Briefings and lectures from government officials and agencies, as well as directed readings on current issues.

392. Seminar in State Government. (3:3:0) For students interning with the Utah state legislature. Prerequisite: acceptance to Utah state legislature internship.
Briefings from state officials and others involved with government.

393. Readings in National Policy and Institutions. (3:1:0) Prerequisite: acceptance to the Washington Seminar.
Directed readings focusing on policies and institutions relating to the student's internship experience.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: acceptance into program.
Work-study on the international, national, state, and local level.

400. Capstone Seminar in Political Theory. (3:3:0) For political science majors only. Prerequisite: PlSc 200, 201, 202, 300.
Seminar in political theory for students in their senior year.

402. Plato's Political Thought. (3:3:0)
Plato's dialogues that contain political teachings or implications.

405. Federalist Papers. (3:3:0)
The primary defense of the Constitution of the United States, which also constitutes the major commentary on that document.

406. Tocqueville on America. (3:3:0)
Alexis de Tocqueville's *Democracy in America*.

408. Hermeneutics, Deconstruction, and Politics. (3:3:0)
Critical political theory, including writers such as Hegel, Nietzsche, Heiddegger, Gadamer, Derrida, and Levinas.

410. Capstone Seminar in American Politics. (3:3:0) For political science majors only. Prerequisite: PlSc 110, 200, 310.
Seminar in American politics and government for students in their senior year.

430. Capstone Seminar in Public Policy. (3:3:0) For political science and public policy majors only. Prerequisite: PlSc 110, 200, 330.
Seminar in public policy for students in their senior year.

444. The Political Economy of Development. (3:3:0) Recommended: Econ 110 or PlSc 205; PlSc 200.
Political foundations of growth, providing public goods, and political reform in developing countries. Development and how institutions and culture shape it.

450. Capstone Seminar in Comparative Politics. (3:3:0) For political science majors only. Prerequisite: PlSc 150, 200, 350.
Seminar in comparative politics and government for students in their senior year.

452. Islam and Politics. (3:3:0)
Tensions and accommodations between religion and politics in Muslim nations.

454. Jerusalem: Past, Present, and Future. (3:3:0)
Regarded as a key in the process of conflict resolution, Jerusalem in light of its rich political, historical, and religious past, together with its controversial future.

458. Totalitarianism. (3:3:0)
Totalitarian systems of government and philosophy in nineteenth and twentieth centuries.

470. Capstone Seminar in International Relations. (3:3:0) For political science majors only. Prerequisite: PlSc 170, 200, 370.
Seminar in international relations and politics for students in their senior year.

471. Intelligence and National Security. (3:3:0) Prerequisite: PlSc 200.
Relationship between theory and practice of intelligence and national security of states.

472. International Political Economy of Women. (3:3:0) W Recommended: PlSc 200 or Hist 200.
Effects upon national, international, and developmental policies when women are rendered visible and valued.

473. Human Rights. (3:3:0)
Causes of human rights violations and societal and state responses; nature, history, and impacts of international human rights norms; ways to define and promote rights.

474. Arab-Palestinian-Israeli Conflict. (3:3:0)
Emphasizes historical background, current situation, and alternatives leading to conflict resolution.

498R. Directed Individual Study. (1–3:3:0 ea.) Prerequisite: senior status and department chair's and instructor's consent.

499. Honors Thesis. (1–3:Arr.:0 ea.) On dem. Prerequisite: completion of lower-division political science major requirements.

500-Level Graduate Courses (available to advanced undergraduates)

509R. Advanced Topics in Political Philosophy. (3:3:0 ea.)
Contemporary issues.

519R. Advanced Topics in American Government. (3:3:0 ea.)

530. Political Economy. (3:3:0)
Competing theories of the relationship between economics and politics and specific fiscal, monetary, and regulatory policies.

532. Policy Analysis and Methods 1. (3:3:0) Prerequisite: college algebra and microeconomics.
Policy analytic methods: program evaluation, management information systems, benefit-cost analysis, and decision theory.

533. Policy Analysis and Methods 2. (3:3:0)
Policy analytic methods: surveys and optimization models, statistical analyses, simulation, and social choice models.

535. Natural Resources Policy. (3:3:0)
Processes and politics of public policies related to natural resources. Problems of analysis and evaluation.

536. Environmental Regulation. (3:3:0)
Regulatory programs aimed at air and water pollution, hazardous waste, toxic chemicals, and other environmental problems. Alternative regulatory mechanisms and approaches.

539R. Advanced Topics in Public Policy. (3:3:0 ea.)

545. Social Policy. (3:3:0)
Justifications for government intervention in families and individual lives, effectiveness of social policies.

549R. Advanced Topics in Politics. (3:3:0 ea.)
Politics of growth, inequality, ethnicity, and class conflict.

558. Political Economics of Development. (3:3:0)
Uneven distribution of global resources; politics of underdevelopment.

559R. Advanced Topics in Comparative Government. (3:3:0 ea.)
Modernization and political change; comparative legislatures, etc.

569R. Advanced Topics in Law and Justice. (3:3:0 ea.)

570. Advanced Theory of International Relations: Core Readings. (3:3:0)
Theory and research of international relations.

571. Foreign Policy Analysis. (3:3:0) Prerequisite: PlSc 200, 370.
Survey of research regarding multiple levels of foreign policy analysis: individual, group, bureaucratic, societal, economic, and systemic.

572. Continuity and Change in the International Political Economy. (3:3:0)
Dynamics of change in international political economy in post–Cold War period.

578R. Advanced Topics in Foreign Policies. (3:3:0 ea.)
Efforts to secure national security and international stability in a fragile and volatile global environment.

579R. Advanced Topics in International Relations. (3:3:0 ea.)
Relevant contemporary issues.

599R. Academic Internship. (1–9:0:0 ea.) Prerequisite: acceptance into program.
Internships for master's candidates.

Political Science Faculty

Professors

Bowen, Donna Lee (1978) BA, U. of Utah, 1968; MA, PhD, U. of Chicago, 1972, 1981.
Bryner, Gary (1982) BA, U. of Utah, 1975; MA, PhD, Cornell U., 1980, 1982.
Davis, Richard (1992) BA, MA, Brigham Young U., 1975, 1979; MA, PhD, Syracuse U., 1983, 1986.
Daynes, Byron W. (1990) BS, MS, Brigham Young U., 1963, 1965; PhD, U. of Chicago, 1971.
Fry, Earl Howard (1980) BA, MA, Brigham Young U., 1971, 1972; PhD, U. of California, Los Angeles, 1976.
Gong, Gerritt (2001) BA, Brigham Young U., 1977; MPhil, DPhil, Oxford U., 1979, 1981.
Hancock, Ralph C. (1987) BA, Brigham Young U., 1977; MA, PhD, Harvard U., 1980, 1983.
Hollist, W. Ladd (1981) BA, Utah State U., 1971; MA, PhD, U. of Denver, 1973, 1974.
Hudson, Valerie M. (1987) BA, Brigham Young U., 1978; MA, PhD, Ohio State U., 1983.
Magleby, David Blyth (1981) BA, U. of Utah, 1973; MA, PhD, U. of California, Berkeley, 1974, 1979.
Porter, Bruce D. (1992) BA, Brigham Young U., 1976; MA, PhD, Harvard U., 1978, 1979.
Reynolds, Noel B. (1970) BA, Brigham Young U., 1967; MA, PhD, Harvard U., 1968, 1971.
Snow, R. J. (1990) BA, U. of Utah, 1962; MA, PhD, Northwestern U., 1965, 1966.
Taylor, Stanley A. (1968) BS, Brigham Young U., 1959; MA, MALD, PhD, Fletcher School of Law and Diplomacy, 1961, 1962, 1968.

Associate Professors

Bohn, David Earle (1975) BA, MA, Brigham Young U., 1967, 1969; PhD, Columbia U., 1974.
Christensen, Raymond V. (1996) BA, Brigham Young U., 1984; JD, MA, PhD, Harvard U., 1987, 1990, 1992.
Hyer, Eric (1988) BA, Brigham Young U., 1979; MA, East Asian Inst. Cert., PhD, Columbia U., 1981, 1982, 1990.
Jacoby, Wade (2000) BA, Brigham Young U., 1987; PhD, Massachusetts Inst. of Technology, 1996.
Patterson, Kelly D. (1993) BA, MA, Brigham Young U., 1982, 1984; PhD, Columbia U., 1989.

Assistant Professors

Cooper, Scott (1999) BA, Brigham Young U., 1992; MA, PhD, Duke U., 1996, 1999.
Goodliffe, Jay (1997) SB, Massachusetts Inst. of Technology, 1992; MA, PhD, U. of Rochester, 1995, 1998.
Hawkins, Darren G. (1998) BA, U. of Utah, 1990; MA, PhD, U. of Wisconsin, 1991, 1996.
Holland, Matthew S. (2001) BA, Brigham Young U., 1991; MA, PhD, Duke U., 1998, 2001.
Nielson, Daniel L. (1996) BA, Brigham Young U., 1988; PhD, U. of California, San Diego, 1997.
Wilson, Sven E. (1997) BA, Brigham Young U., 1989; MA, PhD, U. of Chicago, 1992, 1997.

Emeriti

Farnsworth, Lee W. (1964) BA, MA, U. of California, Berkeley, 1957, 1960; PhD, Claremont Graduate School, 1963.
Fletcher, Charles T. (1967) BS, Brigham Young U., 1939.
Galbraith, David B. (1985) BA, MA, Brigham Young U., 1964, 1965; PhD, Hebrew U. of Jerusalem, 1984.
Hillam, Ray C. (1960) BS, U. of Utah, 1955; MA, George Washington U., 1958; PhD, American U., 1964.
Johnson, G. Wesley (1984) AB, Harvard U., 1957; MA, PhD, Columbia U., 1961, 1967.
Mabey, Melvin P. (1955) BS, MA, Brigham Young U., 1947, 1953; DPhil, Oxford U., England, 1955.
Midgley, Louis C. (1960) BS, MS, U. of Utah, 1954, 1957; PhD, Brown U., 1964.
Morrell, Edwin B. (1961) BA, Brigham Young U., 1956; MA, PhD, Harvard U., 1959, 1966.
Paxman, Monroe J. (1973) JD, U. of Utah, 1949.
Reeder, Jesse W. (1952) BS, MS, Utah State U., 1934, 1937; PhD, Cornell U., 1952.
Riggs, Robert E. (1975) BA, MA, U. of Arizona, 1952, 1953; PhD, U. of Illinois, 1955; LLB, U. of Arizona, 1963.
Slover, Robert H. (1964) BA, U. of Oklahoma, 1935; MA, PhD, Harvard U., 1948, 1950.
Sorensen, Alma Don (1970) BS, Utah State U., 1960; MA, PhD, U. of Illinois 1962, 1965.
Thomson, Dennis L (1977) BA, U. of Idaho, 1960; MA, Arizona State U., 1961; PhD, U. of California, Santa Barbara, 1969.
Tullis, F. LaMond (1969) BA, MA, Brigham Young U., 1961, 1964; MPA, PhD, Harvard U., 1965, 1969.

Portuguese

See Spanish and Portuguese.

Psychology

M. Gawain Wells, Chair
1001 SWKT, (801) 422-4287

Undergraduate Coordinator
1001 SWKT, (801) 422-5356

Graduate Coordinator
1001 SWKT, (801) 422-4560

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All undergraduate degree programs in the Department of Psychology are open enrollment.

The Discipline

Psychology is a traditional discipline in the liberal arts and sciences and is rooted in the Western intellectual tradition. Since its founding in the late nineteenth century, psychology has distinguished itself primarily as a science with a wide scope of interests. Many psychologists also provide treatment for a broad range of disorders, and others work to solve pressing social issues. The diverse world community of academic and professional psychologists is devoted to expanding our understanding of individual and collective behavior and applying that understanding toward improving the human condition.

The department joins students and faculty together to make a scientific and applied contribution to the discipline of psychology. Its faculty members and administrators are committed to an educational experience that excites learning and understanding in personal and collaborative settings. At the same time the department honors the restored gospel as vital for psychological theory, as a guide for professional conduct, and as a source of unique insight. Aware of the history of psychology and as active participants therein, faculty members hold students to high standards of individual and collective performance and understanding. Students are expected to respond to multiple styles of teaching and broad opportunities for engagement in research and application with serious and sustained interest and effort. In this way the department distinguishes itself as a community of scholarship, moral principle, and devotion to the elevation of humankind.

Career Opportunities

The psychology major is a gateway to professional employment and to advanced study in psychology. Psychologists engage in a variety of academic roles as teachers, researchers, and administrators and also provide counseling, clinical, and consulting services to individuals and organizations. Psychologists are employed by colleges and universities, public and private schools, clinics, and hospitals. They work in private practice and for corporations and government entities. The study of psychology has particular value for family life and for civic and cultural roles generally. The psychology major provides a well-informed perspective on human and organizational behavior in preparation for occupations in law enforcement, law, or business.

Most professional positions require a master's or doctoral degree, although a bachelor's degree may be sufficient to gain employment in high school teaching, mental health care, detention and probation services, auxiliary social work, personnel, or human resources. Further, the psychology major gives students a particularly strong background leading to graduate study in business, law, or medicine.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course)	0–3.0 hours
(or Math ACT score of at least 22)	
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS	Psychology
Minors	Psychology
	Psychology Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Psychology
PhD	Psychology
PhD	Clinical Psychology

For more information, see the BYU 2003–2004 Graduate Catalog.

BS Psychology (54–55 hours*)

Major Requirements

1. At least 22 of the total major credits must be 300-level or above. (Students can enroll in 500-level courses on a space-available basis.)
2. At least 23 hours of psychology major credit must be received while in residency at BYU.
3. A maximum of 13 hours may be taken as Independent Study (only 8 of which may count as residence hours).
4. Complete the following prerequisite courses:
   Psych 101, 111, 210.

   Note: These courses must be completed prior to enrollment in the courses listed in item 6 below.
5. Complete the following:
   Psych 301, 302, 304.

   Note: Psych 301 is prerequisite to both Psych 302 and 304 and to the other 300-level courses in the curriculum. Psych 301 may be taken concurrently with 210. It is highly recommended that Psych 302 and 304 be taken as soon as 301 is completed.
6. Complete four courses in one of the following clusters, including the required course indicated. In addition, complete three of the courses listed in one or both of the other clusters:
   Cluster A—Developmental and Clinical Psychology:
   Complete the following required course:
   Psych 341.
   Complete three courses from the following:
   Psych 311, 320, 321, 322, 342, 343, 348.
   Cluster B—Social Psychology:
   Complete the following required course:
   Psych 350.
   Complete three courses from the following:
   Psych 306, 311, 330, 338, 341, 352, 353, 354, 356, 358, 359, 376.
   Cluster C—Behavior, Brain, and Cognition:
   Complete the following required course:
   Psych 381.
   Complete three courses from the following:
   Psych 311, 361, 365, 370, 375, 382.
7. Complete 3 hours from the following:
   Psych 410R, 420R, 430R.
8. Complete one course from the following:
   Engl 115, 200.
   Phil 105.
9. Complete one course from the following:
   Engl 315, 316.
   Phil 311.
10. Complete one course from the following:
    Anthr 101.
    ElEd 351.
    MFHD 354.
    Soc 113.
11. Complete one course from the following:
    PlSc 472.
    Psych 306.
    Soc 367.
    WS 222.

    Note: If Psych 306 is selected to fill this requirement, it cannot also be used to fill the requirement listed in item 6 above (Cluster B).

*Hours include courses that may fulfill GE or university requirements.

Minor Psychology (19 hours*)

Minor Requirements

1. Complete the following:
   Psych 111; 301 or equivalent.
2. Complete 12 elective hours from remaining undergraduate and 500-level courses; 9 hours must be 300-level or above. No more than 6 hours of Independent Study credit may count toward the minor.

*Hours include courses that may fulfill GE or university requirements.

Minor Psychology Teaching (21 hours*)

Minor Requirements

1. Complete the following:
   Psych 111, 321, 361.
2. Complete 12 elective hours of psychology (Psych 240, 320, 350 are recommended).

*Hours include courses that may fulfill GE or university requirements.

Psychology (Psych)

Undergraduate Courses

*Designates courses containing content featured in the Graduate Record Examination (GRE) Subject Test.

101. Orientation to the Psychology Major. (1:1:0) F, W, Sp, Su
Required seminar for all students entering major. Overview of curriculum and major requirements, faculty research programs and specialities, campus resources, and career possibilities.

111. General Psychology. (3:3:0) Honors and Independent Study also.
Basic course in modern scientific psychology.

170. Understanding and Improving Your Memory. (1:0:0) Independent Study only.
Principles of human learning and memory; study skills and methods for improving memory.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Practical or applied experience complementing the major; designed to strengthen theoretical and practical bases of knowledge.

***210. History of Psychology.** (3:3:0) F, W, Sp, Su
Overview of psychological thinking from ancient Greece to present. Emphasizes a critical stance toward assumptions and implications of major psychological theories.

212R. Special Topics in Psychology. (1–3:Arr.:Arr. ea.)
Small-group seminar focusing on a classic text or on readings related to a contemporary issue in theory and research.

220. Human Development: Life Span. (3:3:0)
Interaction of psychological, biological, and social influences on behavior and psychological development through the life span.

240. Personal and Social Adjustment. (3:3:0) Independent Study also.
Concepts of adjustment and application of psychological principles for coping with stress and interpersonal, emotional, and psychosexual difficulties.

270. Improving Mental Skills. (3:3:0)
Studying, rapid reading, remembering, and problem solving.

300. Applying to Graduate School. (1:1:0)
Overview of graduate programs in psychology; preparing application materials, including the Graduate Record Examination (GRE).

***301. Psychological Statistics.** (4:4:0) Independent Study also. Prerequisite: Math 110 or equivalent.
Descriptive analysis and hypothesis testing applied to psychological research data.

***302. Psychological Research Design and Analysis.** (4:3:1) Prerequisite: Psych 301.
Basic principles of designing, conducting, and reporting psychological investigations. Foundation skills writing in psychology discipline, including APA style.

304. Psychological Testing. (4:3:1) Prerequisite: Psych 301.
Construction and validation of standardized psychological tests. Further writing in psychology discipline.

306. Psychology of Gender. (3:3:0) Independent Study also.
Biological and social contributions to sex role development, sexual self-concept, and complementarity of sex roles.

311. Critical Issues in Psychology. (3:3:0) F, W, Sp, Su Prerequisite: Psych 111, 210.
Critical and comparative examination of underlying theoretical and philosophical issues relevant to contemporary social, personality, and cognitive psychology, neuroscience, and psychotherapy.

***320. Developmental Psychology: Childhood.** (3:3:0) Independent Study also. Prerequisite: Psych 111 or instructor's consent.
Physical, mental, emotional, and social development of the child.

321. Developmental Psychology: Adolescence. (3:3:0) Independent Study also.
Development and maturation during adolescence; research methodology.

322. Developmental Psychology: Adulthood. (3:3:0) Independent Study also.
Stability and change in psychological, physiological, and interpersonal processes through early, middle, and late adulthood.

330. Organizational Psychology. (3:3:0) Independent Study also.
Personal, interactional, and structural aspects of organizations; motivation, decision making, problem-solving communication, leadership, organizational structure, change. Students taking this class should not take OrgB 321.

338. Sport Psychology. (3:3:0)
Application of psychological principles to sporting activities.

***341. Personality.** (3:3:0) Independent Study also.
Individual patterns of behavior, thought, and emotion; personality theories and their associated strategies of research, assessments, and personality change.

***342. Abnormal Psychology.** (3:3:2) Prerequisite: Psych 111 or instructor's consent.
Dynamics of maladjustment; major psychological disorders and therapeutic procedures. Fieldwork required.

343. Child Psychopathology. (3:3:0)
Mental disorders of childhood.

348. Clinical Psychology. (3:3:0)
Personality theories, psychopathology, diagnostic interviewing and testing, psychotherapy techniques; research methods. Not a practicum.

***350. (Psych-Soc) Introduction to Social Psychology.** (3:3:0) Independent Study also.
Conformity and obedience; socialization, norms, roles; attitudes, leadership, group processes.

352. (Psych-Soc) Applied Social Psychology. (3:3:0) Prerequisite: Psych-Soc 350.
Applying social psychological theory, research, and methods to such domains as law, business, education, the media, mental health, and physical health.

353. LDS Perspectives and Psychology. (3:3:0)
Relationships between theories of psychology and LDS thought.

354. Psychology of Religion. (3:3:0)
Classification of religious behavior and experience; source of religious motivation; religion and the growth process.

356. Introduction to Health Psychology. (3:3:0) F, W
Psychology focusing on the Biopsychosocial Model, i.e., health issues from standpoint of biological, psychological, and social factors.

358. Leadership Development. (3:2:2) Independent Study also.
Principles and practices of successful leadership: decision making, communications, planning, team building, motivation, and interpersonal skills.

359. Environmental Psychology. (3:3:0) Independent Study also. Prerequisite: Psych 111.
Interaction between people and their physical context.

***361. Principles of Learning.** (3:3:0) Prerequisite: Psych 302.
Principles of learning; representative experiments.

***365. Motivation.** (3:3:0)
Determinants of motivation, relationship of motives to emotion, thought, personality, and action. Implications for understanding self and others.

***370. Sensation and Perception.** (3:3:0) Prerequisite: Psych 302; or Neuro 105 for neuroscience majors.
Sensory basis of perception and principles of perceptual organization.

***375. Cognition.** (3:3:0) Prerequisite: Psych 302.
Perceptual organization; information processing; cognitive development; relationships between sensory analysis, perception, memory, learning, language, and problem solving.

376. Psychology, Language, and Culture. (3:3:0)
Principles of linguistics and their implications for cognitive theory; social psychology of language and culture; nonverbal communication.

***381. Behavioral Neurobiology.** (3:3:0) Prerequisite: Psych 302 or Neuro 105.
Basic physiological, anatomical, and chemical foundations of psychology.

***382. Stress Psychobiology.** (3:3:0) Prerequisite: Psych 302 or Neuro 105.
Behavioral neurobiology of stress.

386R. Behavioral Neurobiology Laboratory. (1–3:Arr.:Arr. ea.) Prerequisite: Psych 381, 382, or concurrent enrollment and instructor's consent.

390R. Special Topics in Psychology. (1–3:3:0 ea.) Prerequisite: instructor's consent.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: Psych 111 and department's consent.

410R. Senior Practicum: Teaching of Psychology. (1–8:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Capstone experience as an undergraduate teaching assistant or Psych Central tutor or in other teaching-related activities, including research.

420R. Senior Practicum: Community Projects. (1–8:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Capstone experience in community-based service learning related to practice of psychology. Structured record of student's experience required.

430R. Senior Practicum: Research in Psychology. (1–8:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Capstone experience in psychological research—laboratory-based, field-based, or otherwise. Students typically work with a research team.

492R. Supervised Instructional or Research Experience. (1–3:0:0 ea.) Prerequisite: instructor's invitation to register.
Course-related instructional activities or laboratory/field research.

495R. Independent Readings. (1–3:Arr.:Arr. ea.) Independent Study also. Prerequisite: instructor's consent.

499R. Independent Research. (1–3:0:0 ea.) Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

501. Data Analysis in Psychological Research 1. (4:3:1) Prerequisite: Psych 301 or Stat 222; or Stat 221, 223.
Using and interpreting major quantitative methods in psychology; some commonly used computer methods.

502. Data Analysis in Psychological Research 2. (4:3:1) Prerequisite: Psych 501 or instructor's consent.
Analysis of variance and experimental design; multiple regression; introduction to multivariate methods.

503. Research Measurement. (3:3:0)
Classical true score and item response theories; estimation procedures for instrument reliability and validity.

504. Research Design. (3:3:0) Prerequisite: Psych 503.
Overview of designs used in psychotherapeutic literature, emphasizing critical analysis of empirical research.

505. Clinical Research. (3:3:0) Prerequisite: Psych 503, 504.
Overview of research examining processes and outcomes of psychological treatments for psychological disorders.

***510. History and Systems of Psychology.** (3:3:0)
Survey of origins and development of modern psychology, including consideration of the schools and theoretical systems.

511. Philosophy of Science for the Social Sciences. (3:3:0) Prerequisite: instructor's consent or admission to PhD program.
Issues in philosophy of science as they apply to social sciences, including methods, epistemology, and construction of knowledge.

512. Qualitative Research Methods. (3:3:0)
Theories and methods of qualitative research emphasizing philosophical assumptions, question formulation, data gathering, interpretation, and presentation of findings.

520. Advanced Developmental Psychology. (3:3:0)
Major research in developmental psychology, emphasizing theory, content, and methodology.

531. Organizational Psychology. (3:3:0)
Personal and interpersonal aspects of organizational life: goal setting, decision making, problem solving, communication, control, leadership, motivation, and change.

535. Behavior Modification Techniques. (3:2:2)
Practical application of behavior modification to academic discipline; emotional target behaviors of individuals and groups.

540. Personality Theory. (3:3:0) Prerequisite: Psych 341 and 5 additional hours in psychology.
Contemporary theories of personality developed within the framework of major psychological systems.

550. Theory and Research in Social Psychology. (3:3:0) Prerequisite: Psych-Soc 350 or instructor's consent.
Current theories and research on interaction with others.

552. Applied Social Psychology. (3:3:0) Prerequisite: Psych-Soc 350; graduate standing or instructor's consent.
Overview of domains in which social psychological theory and research have been applied in field settings.

555. Group Dynamics. (3:3:0) Prerequisite: Psych-Soc 350.
Theories and research on small-group processes and mass behavior.

560. Learning Theory. (3:3:0) Prerequisite: Psych 361 and 5 additional hours in psychology.
Critical review of current theories and persistent issues.

565. Motivational Psychology. (3:3:0) Prerequisite: Psych 365 or equivalent; graduate standing or instructor's consent.
Theoretical, historical, and empirical overview; recent trends and issues; role of animal studies; methodological issues.

575. Cognitive Processes. (3:3:0) Prerequisite: Psych 370, 375, or equivalent; graduate standing or instructor's consent.
Theory and research in perception, attention, language, problem solving, and other thinking processes.

583. Biological and Health Psychology. (3:3:0) Prerequisite: Psych 381, 382, or equivalent.
In-depth examination of biological bases of behavior from perspective of health and disease.

584. Cognitive Neuroscience. (3:3:0) Prerequisite: graduate standing or instructor's consent.
Critical analysis of neurobiological bases of perception and cognition.

585. Human Neuropsychology. (3:3:0) Prerequisite: Psych 381, 382, or instructor's consent.
Critical study of brain-behavior relationships.

586. Hormones and Behavior. (3:3:0) Prerequisite: Psych 381, 382.
Neural and endocrine mechanisms underlying behavior.

587. Sensory and Perceptual Processes. (3:3:0) Prerequisite: Psych 370, 381, 382; or instructor's consent.
Critical examination of sensory mechanisms and perceptual organization.

592R. Supervised Teaching Experience. (1–3:Arr.:Arr. ea.) For students receiving supervised teaching experience. F, W, Sp, Su

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Psychology Faculty

Professors

Ballif-Spanvill, Bonnie (1994) BS, PhD, Brigham Young U., 1962, 1966.
Barlow, Sally H. (1978) BA, MSW, PhD, U. of Utah, 1971, 1973, 1978.
Bigler, Erin D. (1990) BS, PhD, Brigham Young U., 1971, 1974.
Bloch, George J. (1989) BA, Brandeis U., 1962; MA, Claremont Graduate School, 1965; PhD, Stanford U., 1968.
Brown, Bruce L. (1968) BS, MS, Brigham Young U., 1965, 1968; PhD, McGill U., Canada, 1969.
Burlingame, Gary M. (1983) BS, Andrews U., 1978, MS, PhD, U. of Utah, 1981, 1983.
Higbee, Kenneth L. (1970) BS, MS, Brigham Young U., 1965, 1966; PhD, Purdue U., 1970.
Lambert, Michael J. (1971) BS, MS, PhD, U. of Utah, 1967, 1968, 1971.
Miller, Harold L., Jr. (1975) BS, Arizona State U., 1970; PhD, Harvard U., 1975.
Pedersen, Darhl M. (1962) BS, MS, Brigham Young U., 1957, 1958; PhD, U. of Illinois, 1962.
Robinson, Paul W. (1969) BS, MS, PhD, Utah State U., 1965, 1967, 1973.

Slife, Brent D. (1994) BA, William Jewell Coll., 1976; MS, PhD, Purdue U., 1977, 1981.
Wells, M. Gawain (1972) AS, Dixie Coll., 1964; BS, MS, Brigham Young U., 1967, 1968; PhD, Purdue U., 1972.
Williams, Richard N. (1981) BS, Brigham Young U., 1974; MS, PhD, Purdue U., 1978, 1981.

Associate Professors
Carpenter, Bruce N. (1996) BS, Brigham Young U., 1974; MS, PhD, U. of Wisconsin, Madison, 1977, 1980.
Ridge, Robert D. (1992) BS, Brigham Young U., 1987; PhD, U. of Minnesota, 1992.
Spangler, Diane L. (1997) BA, Pomona Coll., 1989; MS, PhD, U. of Oregon, 1991, 1994.

Associate Clinical Professor
Maughan, Michael L. (1972) BS, MS, EdD, Utah State U., 1966, 1968, 1970.

Assistant Professors
Allen, Mark D. (2000) BS, U. of Utah, 1993; MA, U. of Washington, 1995; PhD, Johns Hopkins U., 2002.
Clayton, Claudia J. (1991) BS, Brigham Young U., 1970; PhD, U. of Utah, 1976; PhD, Brigham Young U., 1991.
Gantt, Edwin E. (1998) BS, Brigham Young U., 1992; MS, PhD, Duquesne U., 1994, 1998.
Hedges, Dawson W. (2000) BS, Weber State Coll., 1984; MD, U. of Utah, 1998.
Holt-Lunstad, Julianne (2001) BS, MS, Brigham Young U., 1994, 1998; PhD, U. of Utah, 2001.
Hopkins, Ramona O. (1999) AS, Brigham Young U., 1975; BS, Westminster Coll., 1988; MS, PhD, U. of Utah, 1992, 1996.
Layne, Christopher M. (1998) BA, U. of Utah, 1989; MA, PhD, U. of California, Los Angeles, 1991, 1996.
Spackman, Matthew P. (1998) BS, MS, Brigham Young U., 1994, 1996; PhD, Georgetown U., 1998.
Steffen, Patrick R. (2000) BS, Brigham Young U., 1993; MS, PhD, U. of Miami, 1996, 1998.
Steffensen, Scott C. (2001) BS, PhD, U. of Utah, 1980, 1987.

Assistant Clinical Professor
Nielsen, Stevan L. (1988) BS, Brigham Young U., 1976; PhD, U. of Washington, 1984.

Executive Coordinator of Clinical Psychology
Norton, Elizabeth J. (1994) BS, PhD, Brigham Young U., 1972, 1978.

Emeriti
Bednar, Richard L. (1982) BS, MS, Brigham Young U., 1961, 1963; PhD, U. of Minnesota, 1968.
Bennion, Robert C. (1961) BA, Brigham Young U., 1956; MA, PhD, Ohio State U., 1959, 1961.
Bergin, Allen E. (1972) BS, MS, Brigham Young U., 1956, 1957; PhD, Stanford U., 1960.
Budge, Harold S. (1960) BS, MS, Utah State U., 1958, 1960; PhD, U. of Utah, 1981.
Bunker, Gary L. (1970) BA, MA, Brigham Young U., 1960, 1961; PhD, U. of California, Berkeley, 1966.
Cundick, Bert P. (1962) BA, MS, U. of Utah, 1957, 1959; PhD, Ohio State U., 1962.
Daniels, Philip B. (1961) BS, MS, Brigham Young U., 1954, 1957; PhD, Harvard U., 1962.
Fleming, Donovan E. (1971) BS, MS, Brigham Young U., 1956, 1957; PhD, Washington State U., 1962.
Hardy, Kenneth R. (1954) BA, MA, U. of Utah, 1948, 1949; PhD, U. of Michigan, 1954.
Howell, Robert J. (1952) BA, MA, PhD, U. of Utah, 1948, 1949, 1951.
Jensen, Larry C. (1965) BS, MS, Brigham Young U., 1960, 1961; PhD, Michigan State U., 1966.
Payne, I. Reed (1964) BS, Brigham Young U., 1956; MS, PhD, Pennsylvania State U., 1958, 1963.
Robinson, Burton W. (1955) BS, MS, Utah State U., 1951, 1951; PhD, Purdue U., 1954.
Smith, Kay H. (1961) BA, MA, Brigham Young U., 1957, 1958; PhD, Wayne State U., 1962.
Stimpson, David V. (1964) BS, MS, Brigham Young U., 1959, 1960; PhD, U. of California, Berkeley, 1964.
Sullivan, Clyde E. (1981) BA, PhD, U. of California, Berkeley, 1948, 1958.
Weight, David G. (1969) BA, MS, Brigham Young U., 1963, 1965; PhD, U. of Washington, 1969.

Public Management

See Romney Institute of Public Management in Marriott School of Management section of this catalog.

Recreation Management and Youth Leadership

Brian J. Hill, Chair
273-C RB, (801) 422-4369

College of Health and Human Performance Advisement Center
203 RB, (801) 422-3638

Admission to Degree Program

All degree programs in the Department of Recreation Management and Youth Leadership are open enrollment.

The Discipline

Students in the Department of Recreation Management and Youth Leadership may choose an undergraduate emphasis from the following areas: leisure services management, therapeutic recreation, or Scouting education. Though the three areas represent diverse and unique approaches, they share the commitment to a service-oriented profession.

Depending upon the particular emphasis, courses prepare students in the areas of leadership skills, systems management, budgeting and finance, program development, facilities management, philosophy of volunteerism, and current issues in the field. Because of the nature of the profession, course work may not be limited to the Recreation Management and Youth Leadership Department. Course work in the related disciplines of business, behavioral sciences, health sciences, physical education, family sciences, arts, landscape architecture/design, geography, life sciences, and travel and tourism may be required.

Career Opportunities

The curriculum will prepare students to provide professional services designed to meet the recreation, leisure, and youth leadership needs of communities, families, and individuals. Employment may be found in community (municipal/government) recreation agencies; private, commercial, industrial or military recreation programs; youth agencies and Scouting; clinical treatment settings (hospitals) or adaptive programs for people with disabilities; state and national parks; and/or educational settings.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Recreation Management and Youth Leadership
Emphases:
Leisure Services Management
Therapeutic Recreation
BS Scouting Education

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Youth and Family Recreation

For more information see the BYU 2003–2004 Graduate Catalog.

BS Recreation Management and Youth Leadership: Leisure Services Management Emphasis (54 hours*)

Major Requirements

1. Complete the following foundation requirements:
   PMgt 321.
   RMYL 189, 301, 304, 307, 320, 485, 486, 487, 491.
2. Complete 2 hours from the following:
   RMYL 199R.
3. Complete 12 hours from the following:
   RMYL 496R.
4. Complete 12 additional hours from one of the following specializations:

   Community Recreation
   a. Complete the following:
      RMYL 412.
   b. Complete at least one business skills course from the following:
      BusM 340.
      OrgB 327.
   c. Complete at least one leisure management course from the following:
      RMYL 371, 483, 493, 497R.

d. Complete at least one programming course from the following:
   Hlth 320.
   PE 276, 277.
   RMYL 215, 216, 223R (only one 223R course will count for the program).

Commercial Recreation

a. Complete the following:
   RMYL 497R.
b. Complete 9 hours from the following:
   Acc 200.
   BusM 300, 340, 360, 371R, 372.
   OrgB 327.
   RMYL 483.

Outdoor Recreation

Complete the following:
RMYL 421, 422, 423, 424.

*Hours include courses that may fulfill GE or university requirements.

BS Recreation Management and Youth Leadership: Therapeutic Recreation Emphasis (57 hours*)

General Information

1. Students are advised to take Stat 221 to fulfill their Advanced Languages/Mathematics/Music general education requirement.
2. First aid and CPR certification must be obtained before completing the RMYL 496R internship experience.
3. Most agencies now require therapeutic recreation specialists to be certified through the National Council on Therapeutic Recreation Certification (NCTRC). Students should consult the NCTRC Candidate Bulletin to ensure eligibility to sit for the certification exam. To practice in the state of Utah, the law also requires a licensure exam.
4. Students will be required to complete two extensive advising sessions as they declare their major and as they begin their therapeutic recreation core courses.

Major Requirements

1. Complete the following foundation courses:
   PMgt 321.
   RMYL 189, 304, 307, 320, 370, 471, 472, 473, 486, 487.
2. Complete 2 hours from the following:
   RMYL 199R.
3. Complete 12 hours from the following:
   RMYL 496R.
4. Complete the following:
   PDBio 205, 220.
   Psych 220, 342.

*Hours include courses that may fulfill GE or university requirements.

BS Scouting Education (53 hours*)

Major Requirements

1. Complete the following general competency courses:
   Acc 200.
   BusM 340.
   OrgB 347.
   RMYL 412.
   TMA 150.
2. Complete the following core competency courses:
   RMYL 265, 350, 351, 352, 451, 455, 456, 457, 488R.
3. Complete 3 hours from the following:
   RMYL 199R.
4. Complete 12 hours from the following:
   RMYL 496R.

*Hours include courses that may fulfill GE or university requirements.

Recreation Management and Youth Leadership (RMYL)

Undergraduate Courses

123. Introduction to Outdoor Recreation. (2:1:3)
Participation in a variety of outdoor activities.

189. Field Studies in Leisure Services and Therapeutic Recreation. (1:1:0)
Field trips to exemplary leisure service and therapeutic recreation agencies. Facility operations, design, management techniques and philosophy, marketing, and accessibility. Fee.

199R. Academic Internship: Practicum. (1–3:1:Arr. ea.)
Internship or cooperative education experience evaluated by supervisor and posted on student's transcript.

215. Social Recreation Leadership. (3:2:2)
Leadership skills for directing large social groups.

216. Crafts for Recreation. (2:1:3)
Administering and developing hobby craft skills for the recreation practitioner.

223R. Outdoor Skills. (2:2:4 ea.)
In-depth approach to leadership skills in selected outdoor specialty areas, including fly-fishing, winter camping, basic backpacking, camping, wilderness trek, mountain biking, summer camp programs, and family outdoor recreation skills.

244. Introduction to Youth Leadership. (2:2:2)
Role of youth leadership within the American culture; career opportunities. Fee.

265. Scouting in the Church. (2:2:0) F, W, Sp, Su
Scouting as a means to bring young men to Christ and accomplish the purposes of the Aaronic Priesthood.

301. Family Recreation. (3:3:0)
Exploring the role of family recreation in building successful families.

304. Leisure in Contemporary Society. (3:3:0)
Problems and opportunities resulting from the leisure era.

305. Financial Management. (3:3:0)
Financing recreation management facilities and services.

306. Youth Agency Administrative Functions. (3:3:0)
Organizational and operational practices of youth agencies on the administrative level.

307. Accessible Recreation. (3:3:0)
Making the recreation/leisure experience accessible to all people. Applications and implications of ADA in recreation/leisure settings.

320. Program Management. (3:2:1) Prerequisite: RMYL 199R, 304.
Organizing and administering community programs.

323. Basic Rock Climbing. (2:1:3)
Rock climbing. Free and aid climbing, route selection, safety, rescue, etc.

332. Community Relationships. (3:3:0)
Directing community resources toward the needs of youth.

350. Boy Scouts of America Programs 1. (3:3:0) F
Boy Scouting, Varsity Scouting, and Venturing techniques in building codes of conduct, measurement of personal honor, and peer leadership ability.

351. Boy Scouts of America Programs 1 Lab. (2:2:2) F
Leadership skills teaching the importance of the outdoors as a means to teach Scouting ideals.

352. Boy Scouts of America Programs 2. (3:3:0) F
Tiger Cubs, Cub Scouting, Learning for Life, and Exploring: their programs, techniques, and impact on character education.

370. Introduction to Therapeutic Recreation. (3:3:2) Prerequisite: RMYL 199R, 304, 307; PDBio 205 or 220.
Philosophy, agencies, professional organizations, services, programs, practices, and disability groups related to therapeutic recreation.

371. Facilitating Meetings and Conferences. (3:3:1)
Identifying roles of process facilitators as they plan and conduct meetings, activities, and conferences.

373. Practicum in Volunteer Leadership. (2:1:5)
Participation with a youth-serving agency in a volunteer leadership capacity.

375. Executive Dynamics. (3:3:0)
Executive leadership and personal growth practices calculated to meet executive leadership demands.

376. Agency Teen Programs. (2:2:0)
Comprehensive study of youth agency teen programs from perspective of adult volunteer leader and professional Scout.

380. Outdoor Survival Skills. (2:2:1)
Training to meet the adversity of primitive living without use of modern equipment and facilities.

384. Intramural Administration. (2:2:1)
Administrative procedures for intramural and recreational activities.

412. Computer Applications for the Recreation Profession. (3:3:1) Prerequisite: for majors only.
Orienting the undergraduate student to computer applications in the field of recreation management and youth leadership.

421. Outdoor and Experiential Education. (3:3:0) F Prerequisite: instructor's consent.
Philosophy of outdoor and experiential education. Teaching methodologies and skills appropriate for outdoor education.

422. Organizing and Leading Outdoor Programs. (3:3:0) F Prerequisite: instructor's consent.
Preparing to organize and lead effective and safe outdoor and adventure programs through experiential learning opportunities.

423. Management of Outdoor Systems. (3:3:0) Prerequisite: instructor's consent.
Social, economic, political, and resource issues related to natural resource management. Policies of federal land managing agencies.

424. Wilderness First Responder. (3:1:6) F Prerequisite: instructor's consent.
Preparing to provide basic and advanced first aid in back country settings using classroom and field instruction.

425. Issues in Outdoor Recreation. (2:2:0)
Role of outdoor recreation in modern society, including government and nongovernment functions.

451. Boy Scouts of America Finance. (3:3:0) F
Financing the Boy Scouts of America program, facilities, and services.

455. Boy Scouts of America Leadership. (3:3:0) F
Necessity and value of a personal code of ethics, personal management, and leadership in professional Scouting service.

456. Boy Scouts of America Philosophy. (3:3:0) F
Philosophy, theories, and foundations behind the establishment of Scouting and its aims, methods, training, and management.

457. Boy Scouts of America Administration. (3:3:0) F
Administrative practices used by nonprofit settings in which volunteers and professionals give leadership.

471. Assessment in Therapeutic Recreation. (3:3:2) Prerequisite: RMYL 189, 304, 370; PDBio 205, 220; instructor's consent.
Patient assessment techniques and program plan development.

472. Program Dynamics in Therapeutic Recreation. (3:3:2) Prerequisite: RMYL 471.
Comprehensive, specific, and individual program design; assessment interviewing; documentation of patient progress and facilitation techniques; intervention strategies.

473. Issues in Administration of Therapeutic Recreation. (3:3:0) Prerequisite: RMYL 471.
Issues related to personnel/clinical supervision, standards of practice, ethical behavior, program evaluation, quality management, financing, organization, administration, leisure education, and credentialing in therapeutic recreation.

483. Public Facility Management. (2:2:0)
Understanding public facility management: stadium, arena, convention center, performing arts center, etc. Box office, security, staging, food service, utilities, housekeeping, crowd management, event coordination, promotion, contracts, television, lighting, sound, press relations, etc.

485. Management of Recreation Services. (3:3:0) Prerequisite: RMYL 199R, 304.
Personnel, financing, legal aspects, and city and departmental organization of recreation systems.

486. Legal Aspects and Risk Management of Leisure Services. (3:3:0) Prerequisite: RMYL 307, 485.
Legal and risk management issues in recreation/leisure settings.

487. Research and Evaluation. (3:3:0) Prerequisite: RMYL 320 or instructor's consent.
Academic and practical training to assess community recreational needs.

488R. Advanced Training. (1:1:0 ea.) F, W, Sp, Su
BSA training experiences such as Woodbadge, Camp School, JLT training, and Jamboree Leadership.

491. Recreation Facility Planning. (3:3:0) Prerequisite: instructor's consent.
Developing facilities for public and private recreation programs.

493. Park Planning and Development. (2:2:0)

495. Recreation and Community Education. (2:2:0)
History, organization, funding, leadership, facilities, and value of community education.

496R. Academic Internship: Senior Project. (1–12:Arr.:Arr. ea.) Prerequisite: RMYL 199R, 481, and instructor's consent.
Full-time professional internship.

497R. Special Topics and Research. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Special topics and research in recreation management and youth leadership.

499R. Honors Thesis. (3:0:0 ea.) Prerequisite: departmental approval.
Thesis project representing independent work and reflecting highest standards of undergraduate achievement. Must receive both departmental and Honors Program approval.

Graduate Courses

For graduate courses, see the BYU 2003–2004 Graduate Catalog.

Recreation Management and Youth Leadership Faculty

Professors
Catherall, Thomas S. (1971) BS, MA, EdD, Brigham Young U., 1965, 1975, 1980.
Gray, Howard R. (1979) BS, MA, Brigham Young U., 1969, 1970; PhD, Pennsylvania State U., 1977.
Hill, Brian J. (1999) BS, Brigham Young U., 1986; PhD, Clemson U., 1994.
Olsen, Burton K. (1965) BS, MS, Brigham Young U., 1963, 1964; PhD, U. of Minnesota, Minneapolis, 1970.

Teaching Professors
Holley, Bruce F. (1974) BS, MA, Brigham Young U., 1972, 1974.
Palmer, Gary K. (1968) BS, MRE, EdD, Brigham Young U., 1966, 1967, 1981.

Associate Professors
Freeman, Patti A. (1999) BS, Brigham Young U., 1988; MS, Western Illinois U., 1989; PhD, Indiana U., 1993.
Nelson, Douglas C. (1976) BS, MRE, Brigham Young U., 1973, 1976; PhD, U. of New Mexico, 1995.
Widmer, Mark A. (1995) BA, MA, Brigham Young U., 1988, 1990; PhD, U. of Utah, 1993.

Assistant Professors
Phelan, C. Michael (1996) BS, MA, Brigham Young U., 1986, 1987; PhD, U. of Illinois, 1992.
Zabriskie, Ramon (2000) BS, MA, Brigham Young U., 1989, 1993; PhD, Indiana U., 2000.

Assistant Teaching Professor
Lindeman, Barbara B. (1998) BS, Weber State U., 1975.

Emeriti
De Hoyos, Benjamin F. (1961) BS, MA, Brigham Young U., 1956, 1961; PhD, U. of Utah, 1969.
Hafen, William J. (1954) AS, Snow Coll., 1948; BS, Brigham Young U., 1950; MA, Washington State U., 1953; EdD, U. of Utah, 1968.
Hansen, John (1966) BS, MRE, Brigham Young U., 1964, 1966.
Heaton, Israel C. (1956) BS, MS, Utah State U., 1940, 1941; ReD, U. of Indiana, 1955.
Naylor, Jay H. (1959) BS, MS, Brigham Young U., 1958, 1959; EdD, U. of Utah, 1973.
Skinner, Rulon Dean (1969) AA, Eastern Arizona Coll., 1950; BA, MA, Brigham Young U., 1954, 1971.
Thorstenson, Clark T. (1969) BS, MRE, Brigham Young U., 1962, 1965; PhD, U. of Utah, 1969.

Religious Education

Ancient Scripture

Daniel K Judd, Chair
375-A JSB, (801) 422-2067

Ray L. Huntington, Associate Chair
270-F JSB, (801) 422-3125

Ancient Scripture (RelA)

Undergraduate Courses

Asterisk (*) denotes core courses.

***121, 122. Introduction to the Book of Mormon.** (2:2:0 ea.) F, W, Sp, Su Honors and Independent Study also.
Sequential study of the doctrines, principles, and narrative of the Book of Mormon. RelA 121 covers 1 Nephi through Alma 29. RelA 122 covers Alma 30 through Moroni 10. *Returned missionaries may not register for sections numbered lower than 100.*

192R. Special Topics in Ancient Scripture. (1–3:Arr.:Arr. ea.) On dem.
Special topics in ancient scripture for BYU Travel Study participants.

***211, 212. The New Testament.** (2:2:0 ea.) F, W, Sp, Su Honors and Independent Study also.
RelA 211 deals with the Gospels. RelA 212 deals with the Book of Acts, the Epistles, and the Apocalypse (Revelation).

301, 302. The Old Testament. (2:2:0 ea.) F, W, Sp, Su Honors and Independent Study also.
Introduction to the structure and teachings of the Old Testament. RelA 301 covers Genesis through 2 Samuel. RelA 302 covers 1 Kings through Malachi.

304. Writings of Isaiah. (2:2:0) F, W Honors and Independent Study also.
Historical, prophetic, doctrinal, and literary values of Isaiah, emphasizing latter-day interpretation and application.

314. Historical Background of the Bible. (2:2:0) On dem.
Historical and cultural contexts out of which the Old and New Testaments derive.

315. Keys to Scripture Study. (2:2:0) F, W Honors also.
A guide to more effective scripture study through consideration of principles, concepts, skills, study aids, and sources common to all of the standard works.

320. History and Contribution of Joseph Smith's Translation of the Bible. (2:2:0) F, W
Historical significance of Joseph Smith's translation of the Bible, its relationship to the other standard works, and its doctrinal contributions.

327. The Pearl of Great Price. (2:2:0) F, W, Sp, Su Honors and Independent Study also.
Origin and content of the Pearl of Great Price.

392R. Special Studies in Religion: Ancient Scripture. (1–3:Arr.:0 ea.) On dem. Independent Study also.
Topical studies in religion based on student interest and teacher expertise.

Jerusalem Center Courses (RelA)

The following courses are offered only at the BYU Jerusalem Center for Near Eastern Studies. Jerusalem Center courses may not be repeated.

101. Old Testament Survey. (2:1.5:3) Su
Survey of the Old Testament, integrated with extensive field study in the biblical world; leads to understanding, appreciation, and application of scriptural teachings today.

***111. New Testament Survey of the Gospels.** (2:1.5:3) Su
Survey of the New Testament Gospels integrated with extensive field experience in the biblical world; leads to understanding, appreciation, and application of scriptural teachings today.

***200. New Testament Studies.** (1–4:4:0) F, W
Integrated study of the New Testament and LDS history and prophecy in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

300. Old Testament Studies. (2:1.5:3) F, W, Su
Study of the Old Testament integrated with extensive field experiences in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

303. Old Testament Studies. (3:3:4) F, W
Study of the Old Testament integrated with extensive field experiences in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

***310. New Testament Studies of the Gospels.** (2:1.5:3) Su
Study of the New Testament Gospels integrated with extensive field experience in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

***311. New Testament Studies of the Gospels.** (3:2:4) F, W
Study of the New Testament Gospels integrated with extensive field experiences in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

Graduate Courses

For graduate courses, see the BYU 2003–2004 Graduate Catalog.

Ancient Scripture Faculty

Professors

Brown, S. Kent (1971) BA, U. of California, Berkeley, 1967; PhD, Brown U., 1972.
Draper, Richard D. (1988) BS, Brigham Young U., 1968; MA, Arizona State U., 1974; PhD, Brigham Young U., 1988.
Griggs, C. Wilfred (1972) BA, MA, Brigham Young U., 1966, 1968; PhD, U. of California, Berkeley, 1978.
Jackson, Kent P. (1980) BA, Brigham Young U., 1974; MA, PhD, U. of Michigan, 1976, 1980.
Ludlow, Victor L. (1972) BA, Brigham Young U., 1968; PhD, Brandeis U., 1979.
McConkie, Joseph F. (1977) BS, MA, EdD, Brigham Young U., 1965, 1968, 1973.
Millet, Robert L. (1983) BS, MS, Brigham Young U., 1971, 1973; PhD, Florida State U., 1983.
Ogden, D. Kelly (1984) BA, Weber State Coll., 1971; MEd, Brigham Young U., 1974; MA, Inst. of Holy Land Studies, 1978; PhD, U. of Utah, 1982.
Robinson, Stephen E. (1986) BA, Brigham Young U., 1971; PhD, Duke U., 1978.
Seely, David Rolph (1987) BA, MA, Brigham Young U., 1981, 1982; AM, PhD, U. of Michigan, 1985, 1990.
Skinner, Andrew C. (1992) BS, U. of Colorado, 1975; MAR, Iliff School of Theology, 1978; MTh, Harvard U., 1980; PhD, U. of Denver, 1986.
Stohlton, John B. (1999) BS, Brigham Young U., 1960; JD, George Washington U., 1964.

Associate Professors

Ball, Terry B. (1992) BS, MA, PhD, Brigham Young U., 1979, 1990, 1992.
Fronk, Camille (1993) BA, Utah State U.; MA, PhD, Brigham Young U., 1986, 1996.
Hoskisson, Paul Y. (1981) BA, MA, Brigham Young U., 1969, 1973; PhD, Brandeis U., 1986.
Huntington, Ray L. (1995) BS, MA, PhD, Brigham Young U., 1972, 1977, 1995.
Johnson, Stanley (1994) BS, MS, EdD, Brigham Young University, 1975, 1979, 1987.
Judd, Daniel K (1993) BS, Southern Utah U., 1980; MS, PhD, Brigham Young U., 1985, 1987.
Largey, Dennis L. (1989) BA, Church Coll. of Hawaii, 1972; MA, EdD, Brigham Young U., 1976, 1981.
Marsh, W. Jeffrey (1998) BA, U. of Utah, 1981; MEd, PhD, Brigham Young U., 1983, 1989.
Merrill, Byron (1991) BA, Brigham Young U., 1972; JD, U. of California, Davis, 1975.
Parker, Todd (1993) BS, Weber State U., 1974; MEd, EdD, Brigham Young U., 1978, 1985.
Parrish, Alan K. (1984) BS, MBA, Utah State U., 1968, 1972; EdD, U. of Southern California, 1981.
Pike, Dana M. (1993) BS, Brigham Young U., 1978; PhD, U. of Pennsylvania, 1990.
Rhodes, Michael D. (1999) BA, Brigham Young U., 1970; MS, U. of New Mexico, 1989.
Whitchurch, David M. (1998) BS, Utah State U., 1977; MEd, PhD, Brigham Young U., 1982, 1991.
Williams, Clyde (1991) BS, MEd, EdD, Brigham Young U., 1974, 1978, 1989.
Wilson, Keith J. (1995) BA, MA, Brigham Young U., 1976, 1981; PhD, U. of Utah, 1995.

Assistant Professors

Hauglid, Brian M. (1999) BA, Brigham Young U., 1984; MA, PhD, U. of Utah, 1991, 1998.
Sommerfeldt, Vern (1991) BA, MA, PhD, Brigham Young U., 1972, 1980, 1988.
Wayment, Thomas A. (2000) BA, U. of California, Riverside, 1994; MA, PhD, Claremont Graduate School, 1998, 2000.

Instructors

Judd, Frank F. (1999) BA, MA, Brigham Young U., 1993, 1995; MA, U. of North Carolina, 1997.
Strathearn, Gaye (1999) BPhTy, U. of Queensland, Australia, 1983; BA, MA, Brigham Young U., 1991, 1992.
Szink, Terrence L. (1999) BA, Brigham Young U., 1983; MA, U. of California, Los Angeles, 1985.

Emeriti

Anderson, Richard L. (1955) BA, MA, Brigham Young U., 1951, 1957; JD, Harvard U., 1954; PhD, U. of California, Berkeley, 1962.
Bankhead, Reid E. (1948) BS, U. of Utah, 1947; MT, Brigham Young U., 1949.
Benson, Reed Amussen (1978) BS, MA, EdD, Brigham Young U., 1953, 1975, 1981.
Harris, James R. (1966) BS, MA, EdD, Brigham Young U., 1952, 1958, 1965.
Horton, George A., Jr. (1983) BS, MS, Brigham Young U., 1953, 1957; EdD, U. of California, Los Angeles, 1969.
Matthews, Robert J. (1955) BS, MS, PhD, Brigham Young U., 1955, 1960, 1968.
Meservy, Keith H. (1958) BA, Brigham Young U., 1951; MA, Johns Hopkins U., 1966.
Nibley, Hugh W. (1946) BA, U. of California, Los Angeles, 1934; PhD, U. of California, Berkeley, 1938.
Nyman, Monte S. (1966) BS, MS, Utah State U., 1952, 1958; EdD, Brigham Young U., 1965.
Parsons, Robert Ernest (1964) BS, MS, Brigham Young U., 1954, 1957.
Patch, Robert C. (1949) BA, U. of New Mexico, 1945; MA, PhD, Brigham Young U., 1949, 1964.
Rasmussen, Ellis T. (1951) BS, MA, PhD, Brigham Young U., 1942, 1951, 1967.
Reeve, Rex C., Jr. (1981) BS, MS, EdD, Brigham Young U., 1961, 1962, 1974.
Skousen, W. Cleon (1967) JD, George Washington U., 1940.
Tate, Charles D. (1960) BS, MS, Utah State U., 1954, 1958; PhD, U. of Colorado, 1966.
Taylor, Hal L. (1969) BS, MS, Brigham Young U., 1951, 1962.
Turner, Rodney (1956) BA, MA, Brigham Young U., 1949, 1953; EdD, U. of Southern California, 1960.

Church History and Doctrine

Paul H. Peterson, Chair
375-B JSB, (801) 422-3691

Arnold K. Garr, Associate Chair
275-C JSB, (801) 422-3363

Church History and Doctrine (RelC)

Undergraduate Courses

Asterisk (*) denotes core courses.

100. Introduction to Mormonism. (2:2:0) F, W Only for students who are not LDS.

Culture, practices, and doctrines of The Church of Jesus Christ of Latter-day Saints; religion at BYU. It is strongly recommended that this course be taken the first semester at BYU.

130. Sharing the Gospel. (2:2:0) F, W, Sp, Su Honors and Independent Study also. This class may not be *taken* or *retaken* by returned missionaries.

Recommended for all prospective missionaries. Focuses upon the purpose, skills, and doctrines of missionary work and prepares prospective missionaries for a more meaningful MTC and mission experience.

193R. Special Topics in Church History. (1–3:Arr.:Arr. ea.) On dem.

Special topics in Church history for BYU Travel Study participants.

234. LDS Marriage and Family. (2:2:0) F, W, Sp, Su Honors also.

Courtship, marriage, and family relationships from an LDS perspective.

261. Introduction to LDS Family History (Genealogy). (2:2:0) F, W, Sp, Su Honors and Independent Study also.

Introduction to family history program of Church; emphasizes identifying ancestors in the first few generations for whom temple ordinances have not been completed; use of Church resources to simplify temple and family history activities.

262. LDS Family History. (1:1:0) Prerequisite: RelC 261.

Using documents created by the LDS Church to identify ancestors and submit their names for temple ordinances.

263. United States and Canada Family History. (1:1:0) Prerequisite: RelC 261.

Family history sources for the United States and Canada.

264. British Family History. (1:1:0) Prerequisite: RelC 261.

Using documents from the British Isles to identify ancestors and submit their names for temple ordinances.

265. Scandinavian Family History. (1:1:0) Prerequisite: RelC 261.

Using documents from the countries of Scandinavia to identify ancestors and submit their names for temple ordinances.

266. Germanic/Slavic Family History. (1:1:0) Prerequisite: RelC 261.

Using documents from the countries of central and eastern Europe to identify ancestors and submit their names for temple ordinances.

267. Hispanic Family History. (1:1:0) Prerequisite: RelC 261.

Using documents from the countries of Central and South America and Carribean countries, Spanish U.S., and Spain to identify ancestors.

268. Southern European Family History. (1:1:0) Prerequisite: RelC 261.

Using documents from the countries of Portugal, Spain, Andorra, France, and Italy to identify ancestors.

269. Native American Family History. (1:1:0) Prerequisite: RelC 261.

Family history for students of Native American descent.

***324, 325. The Doctrine and Covenants.** (2:2:0 ea.) F, W, Sp, Su Honors and Independent Study also.

Origin, content, and teachings of the Doctrine and Covenants. RelC 324 discusses Sections 1 through 76. RelC 325 considers Sections 77 through 138. Either 324 or 325 will satisfy the core religion reqirement.

333. Teachings of the Living Prophets. (2:2:0) F, W, Sp, Su Honors and Independent Study also.

Calling and function of the living prophets; an emphasis on their teachings through recent conference reports.

340. Early LDS History in Historical Context. (3:3:0) F, W, Sp Prerequisite: admission to Semester in Nauvoo program—Joseph Smith Academy. Offered at Nauvoo Center only.

Church history and doctrine from the birth of Joseph Smith to the post–Nauvoo exodus period. Emphasizes Nauvoo historical context.

341. Latter-day Saint History from 1805 to 1844. (2:2:0) F, W, Sp, Su Honors and Independent Study also.

Church history and doctrine from the birth of Joseph Smith to his martyrdom.

342. Latter-day Saint History 1844–1901. (2:2:0) F, W, Sp, Su Honors and Independent Study also.

Church history and doctrine from the martyrdom of Joseph Smith through the administration of Lorenzo Snow.

343. Latter-day Saint History from 1901 to the Present. (2:2:0) F, W, Sp, Su Honors and Independent Study also.

Church history and doctrine from the administration of Joseph F. Smith to the present.

344. The International Church. (2:2:0) F, W Honors and Independent Study also.

History of the Church from 1830 to the present in Britain, Europe, the Pacific, Asia, Latin America, Africa, the Near East, and other areas.

350. The LDS Church in a World Setting. (2:2:0) F, W Study Abroad only.

Christian foundations, restoration, and historical development of the Church in selected regions of the world. Focuses on specific countries as part of Study Abroad Program.

351. The Gospel and the World's Religions. (3:3:0) F, W, Sp, Su Honors also.

Survey of non-Christian religions and comparisons with LDS doctrine and practice.

352. The Gospel and Christian History. (2:2:0) F, W, Sp or Su

Historical Christianity from its inception to the present.

353. American Christianity and the Rise of the LDS Church. (2:2:0) F, W, Sp or Su

Historical roots and beliefs of the major Christian faiths of America, with special emphasis on the Restoration.

355. Judaism and the Gospel. (1:2:0) F, W, Sp or Su Honors also.

History, doctrine, and practices of Judaism in light of the restored gospel.

356. Islam and the Gospel. (1:2:0) F, W, Sp or Su Honors also.

History, doctrine, and practices of Islam in light of the restored gospel.

370. Introduction to Teaching Seminary. (2:2:0) F, W, Sp, Su

Philosophy, objectives, subject-matter areas, and related problems associated with religious education at the secondary level.

390. Revelations and Doctrinal Teachings of Joseph Smith in Nauvoo. (1–2:Arr.:0) F, W Prerequisite: admission to Semester in Nauvoo program—Joseph Smith Academy. Offered at Nauvoo Center only.

Examination and discussion of the revelations received by Joseph Smith in Nauvoo and the prophet's major doctrinal teachings during the Nauvoo period.

391R. Special Topics in Church History (Nauvoo). (1–2:Arr.:0 ea.) F, W, Sp, Su Prerequisite: admission to Semester in Nauvoo program—Joseph Smith Academy. Offered at Nauvoo Center only.
Topical studies in Church history and doctrine relating to the Nauvoo period, based on student interest and teacher expertise.

393R. Special Studies in Religion: Church History and Doctrine. (1–3:Arr.:0 ea.) F, W, Sp, Su Independent Study also.
Topical studies in religion based on student interest and teacher expertise.

431. Doctrines of the Gospel. (2:2:0) F, W, Sp, Su Honors and Independent Study also.
Doctrines of The Church of Jesus Christ of Latter-day Saints as taught in the scriptures and by latter-day prophets. Intended as a capstone experience to integrate doctrines and principles of the plan of salvation.

471. Methods of Teaching Seminary. (2:2:0) F, W, Sp Su Prerequisite: instructor's consent.
Prospective seminary teachers only.

472. Teaching the Developmentally Disabled. (2:2:0) Prerequisite: instructor's consent.
Training prospective Church Educational System teachers to effectively teach religious education to youth who are developmentally disabled.

473. Seminary Student Teaching. (2:0:0) F, W Prerequisite: RelC 471.
Evaluation of prospective seminary teachers.

475. Seminary Teaching Seminar. (1–2:2:0) Sp
Topics pertinent to success of newly appointed seminary teachers preparatory to fall teaching.

491. Senior Seminar: The Gospel in Academic Disciplines. (1:1:0) F, W, Sp, Su
See individual college for registration instructions. Generally taught by faculty from disciplines outside Religious Education.

492. Senior Seminar: The Gospel in Academic Disciplines. (1–2:Arr.:0) F, W, Sp, Su
See individual college for registration instructions. Generally taught by faculty from disciplines outside Religious Education.

Graduate Courses

For graduate courses, see the BYU 2003–2004 Graduate Catalog.

Church History and Doctrine Faculty

Professors

Bennett, Richard E. (1997) BA, MA, Brigham Young U., 1972, 1975; PhD, Wayne State U., 1984.
Black, Susan Easton (1978) BA, Brigham Young U., 1966; MA, California State Coll., San Bernardino, 1975; EdD, Brigham Young U., 1978.
Brinley, Douglas E. (1990) BS, MS, Utah State U., 1964, 1966; PhD, Brigham Young U., 1975.
Cannon, Donald Q. (1973) BA, MA, U. of Utah, 1961, 1962; PhD, Clark U., 1967.
Choi, Dong Sull (1987) BA, Korea U.; MA, PhD, Brigham Young U., 1984, 1990.
Cowan, Richard O. (1961) BA, Occidental Coll., 1958; MA, PhD, Stanford U., 1959, 1961.
Esplin, Ronald K. (1980) BA, U. of Utah, 1969; MA, U. of Virginia, 1970; PhD, Brigham Young U., 1981.
Garrett, H. Dean (1985) BS, MS, Utah State U., 1967, 1969; EdD, Brigham Young U., 1974.
Keller, Roger R. (1989) BMus, U. of Colorado, 1968; MDiv, Princeton Theological Seminary, 1971; PhD, Duke U., 1975.
Peterson, Paul H. (1984) BA, MA, PhD, Brigham Young U., 1966, 1972, 1981.
Top, Brent (1987) BA, MEd, PhD, Brigham Young U., 1976, 1980, 1984.
Van Orden, Bruce A. (1986) BA, MA, PhD, Brigham Young U., 1970, 1975, 1986.

Teaching Professor

Flake, Lawrence R. (1993) BS, MA, DRE, Brigham Young U., 1965, 1969, 1970.

Associate Professors

Baugh, Alexander L. (1995) BS, Utah State U., 1981; MA, PhD, Brigham Young U., 1986, 1996.
Boone, David F. (1993) BA, MA, EdD, Brigham Young U., 1978, 1981, 1992.
Brooks, Kent R. (2001) BS, MEd, PhD, Brigham Young U., 1979, 1981, 1988.
Chadwick, Jeffrey R. (2001) BA, Weber State Coll., 1978; MA, Brigham Young U., 1984; PhD, U. of Utah, 1992.
Derr, Jill Mulvay (1998) BA, U. of Utah, 1970; MA, Harvard U., 1971.
Dorius, Guy L. (1994) BS, U. of Utah, 1984; MEd, PhD, Brigham Young U., 1986, 1994.
Freeman, Robert C. (1996) BS, Brigham Young U., 1985; JD, Western State U., 1989.
Garr, Arnold (1991) BA, Weber State Coll., 1969; MA, Utah State U., 1974; PhD, Brigham Young U., 1986.
Hedges, Andrew H. (1995) BS, Weber State U., 1986; MA, Brigham Young U., 1991; PhD, U. of Illinois, 1996.
Holzapfel, Richard Neitzel (1993) BS, Brigham Young U., 1980; MA, PhD, U. of California, Irvine, 1990, 1993.
Livingstone, John P. (1998) BSc, U. of Alberta, Canada, 1974; MEd, U. of Regina, Canada, 1981; EdD, Brigham Young U., 1986.
Manscill, Craig K. (1999) BA, Weber State Coll., 1978; MS, PhD, Brigham Young U., 1980, 1987.
Ostler, Craig J. (1995) BA, MEd, PhD, Brigham Young U., 1977, 1979, 1995.
Richardson, Matthew O. (1996) BA, MEd, EdD, Brigham Young U., 1987, 1990, 1996.
Sperry, Kip (1991) BS, MLS, Brigham Young U., 1970, 1974.
Woods, Fred E. (1998) BS, MA, Brigham Young U., 1981, 1985; PhD, U. of Utah, 1991.
Wright, Dennis A. (1995) BS, U. of Idaho, 1968; MEd, Brigham Young U., 1973; PhD, Arizona State U., 1978.

Associate Teaching Professors

Bott, Randy L. (1993) BS, MEd, Utah State U., 1970, 1974; EdD, Brigham Young U., 1988.
Perkins, Jerome M. (1992) BA, MEd, PhD, Brigham Young U., 1971, 1977, 1989.

Research Historian

Jensen, Richard L. (1980) BA, Utah State U., 1968; MA, Ohio State U., 1972.

Assistant Professors

Doxey, Cynthia (1997) BA, MS, U. of Utah, 1985, 1988; MPhil, U. of Cambridge, England, 1991; PhD, Brigham Young U., 1994.
Harper, Steven C. (2002) BA, Brigham Young U., 1994; MA, Utah State U., 1996; PhD, Lehigh U., 2001.
Newell, Lloyd D. (1999) BA, MA, PhD, Brigham Young U., 1980, 1985. 1999.
Woodger, Mary Jane (1999) BS, Brigham Young U., 1980; MEd, Utah State U., 1992; EdD, Brigham Young U., 1997.

Emeriti

Andersen, Wilson Kay (1962) BS, U. of Utah, 1949; MEd, Brigham Young U., 1957.
Backman, Milton V., Jr. (1960) BS, MA, U. of Utah, 1954, 1955; PhD, U. of Pennsylvania, 1959.
Berrett, Lamar C. (1963) BS, U. of Utah, 1952; MS, EdD, Brigham Young U., 1960, 1963.
Bowen, Walter D. (1964) BS, MS, EdD, Brigham Young U., 1957, 1958, 1965.
Caldwell, C. Max (1978) BS, U. of Utah, 1958; MA, Brigham Young U., 1971.
Dahl, Larry E. (1978) BEd, U. of Alberta, Canada, 1961; MRE, EdD, Brigham Young U., 1968, 1971.
Durrant, George D. (1989) BA, MA, EdD, Brigham Young U., 1957, 1964, 1971.
Fugal, John P. (1966) BS, MS, DRE, Brigham Young U., 1948, 1959, 1967.

Garrard, Lamar E. (1967) BS, U. of Idaho, 1949; BS, MS, PhD, Brigham Young U., 1955, 1965, 1968.
Hartshorn, Leon R. (1965) BS, MS, Brigham Young U., 1956, 1959; EdD, Stanford U., 1965.
Horsley, A. Burt (1956) BA, MA, Brigham Young U., 1945, 1954; PhD, West Welhelms U., Germany, 1956.
Jessee, Dean C. (1980) BA, MA, Brigham Young U., 1956, 1959.
Johnson, Clark V. (1979) BA, Utah State U., 1963; MA, PhD, Brigham Young U., 1969, 1977.
LeBaron, E. Dale (1986) BS, MA, EdD, Brigham Young U., 1963, 1965, 1976.
Otten, Leaun G. (1972) BS, MEd, Brigham Young U., 1959, 1965.
Pace, George W. (1970) BA, Brigham Young U., 1960; MA, Colorado State U., 1963; DRE, Brigham Young U., 1976.
Perkins, Keith W. (1975) BA, Arizona State U., 1959; MA, PhD, Brigham Young U., 1970, 1974.
Porter, Larry C. (1970) BS, Utah State U., 1957; MA, PhD, Brigham Young U., 1966, 1971.
Stevenson, J. Grant (1953) AS, Weber Coll., 1952; BA, MA, Brigham Young U., 1953, 1955.
Thorstensen, Clark T. (1969) BS, MRE, Brigham Young U., 1962, 1965; PhD, U. of Utah, 1969.
Wright III, Raymond S. (1990) BA, MA, PhD, U. of Utah, 1967, 1973, 1977.

Religious Education

Religious Education (RelE)

Undergraduate Course

398R. Service Learning in Religious Education. (0.5–2:Arr.:0 ea.) On dem.

Service opportunities and experiences in religious education and Church Educational System needs. No more than 3.0 hours of RelE 398R credit may apply toward the university religion requirement.

Retail Management

See Institute of Marketing: Retail, Sales, and Services in Marriott School of Management section of this catalog.

Romanian

See French and Italian section of this catalog.

Russian

See Germanic and Slavic Languages.

Scandinavian Languages

See Center for Language Studies.

Scandinavian Studies

See Center for Language Studies.

Secondary Education

See Teacher Education.

Serbo-Croatian

See Germanic and Slavic Languages.

Slavic Languages

See Germanic and Slavic Languages.

Slovenian

See Germanic and Slavic Languages.

School of Social Work

Elaine Walton, Director
223 KMB, (801) 422-2003

Kevin M. Marett, Associate Director
238 KMB, (801) 422-3211

Jini L. Roby, Undergraduate Coordinator
236 KMB, (801) 422-5085

Shirley E. Cox, Fieldwork Education Director
217 KMB, (801) 422-4320

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

The degree programs in the School of Social Work carry special enrollment limitations. Please see the school for specific details.

The Discipline

The School of Social Work offers a curriculum that includes both core courses in social work and supportive courses in sociology, psychology, English, and biology. This course work prepares the graduate for professional licensure and for immediate employment in numerous human services and social work agencies.

Career Opportunities

Social workers coming out of the bachelor's program are prepared to enter the professional work place immediately upon graduation in a variety of human service settings, including public and private agencies, hospitals, clinics, schools, nursing homes, police departments, juvenile and adult correctional systems, and a wide range of other interesting arenas. Their clientele may be children, women, families, the elderly, or those mentally ill or developmentally disabled, delinquent or criminal, homeless, substance addicted, or troubled with other personal or social issues. The social work profession is particularly committed to helping those members of society who are vulnerable, oppressed, and living in poverty. Because the social work discipline focuses on the person in his or her environment, the variety of human problems encountered by social workers is very diverse. The program also prepares students for a rewarding "career" within their own families through the personal and interpersonal skills taught in the curriculum, as well as for graduate study in social work or related professions.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under the following undergraduate degree program.

Undergraduate Programs and Degrees

BS Social Work

Students should see the program coordinator or school secretary for help or information concerning the undergraduate program.

Graduate Programs and Degrees

MSW Social Work

For more information see the BYU 2003–2004 Graduate Catalog.

BS Social Work (58 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the school office for information regarding requirements for admission to this major.

Accredited by the Council on Social Work Education.

Major Requirements

1. Students are accepted as majors only on formal application after completing the published prerequisites (see item 5 below). Deadlines for submitting applications are March 1 and November 1. Several factors are considered for acceptance because available slots are limited.
2. Students will not be allowed to enroll in SocW 362, 363, 364, 365, 366, 368, 405, 462 unless officially admitted to the program. After formal acceptance as a major, the course sequence is then outlined for the entire program. Without clearance from the fieldwork educational director, students cannot register for the required field experience (496R).

3. A minimum of 480 hours of social service agency experience is necessary for graduation, with 5 credit hours being issued for each 240 hours of field experience along with a weekly integrating seminar (SocW 496R). Students must remain in the practicum a minimum of four uninterrupted months.
4. Complete the following (prerequisite to applying to the major):
   Psych 220.
   Soc 112.
   SocW 260.

   Note: At least a B– grade in each course is required for application to the program.
5. After acceptance into the program, complete the following:
   SocW 311, 362, 363, 364, 365, 366, 368, 405, 462, 464.
6. Complete 6 hours from the following:
   Anthr 330.
   FamLf 100.
   Hist 363, 384, 386.
   IAS 397R.
   MFHD 354.
   PDBio 450R.
   PlSc 472.
   Psych 306.
   Soc 323.
   SocW 390R, 391R, 463, 550, 567, 595R.
   WS 222.
7. Complete 10 hours of the following:
   SocW 496R.
8. Complete the following supplementary course:
   PDBio 205
9. Complete one course from the following:
   Soc 389.
   Psych 342.

Recommended Courses

Preparatory courses to be taken during the freshman and sophomore years:
Anthr 101.
Econ 110.
Psych 111.
Soc 111.

*Hours include courses that may fulfill GE or university requirements.

School of Social Work (SocW)

Undergraduate Courses

260. Introduction to Social Work. (3:3:0) Independent Study also.
Social welfare as a social institution; social work as a profession.

311. Family Interaction. (3:3:0) For majors only. Prerequisite: SocW 360.
Family system through life-cycle stages; intrafamily processes; stresses and challenges; individual and family well-being; family interaction with societal systems within various cultures.

362. Social Service Practice 1. (3:3:0) Prerequisite: SocW 260, 311, and concurrent enrollment in SocW 363; Psych 220; Psych 342 or Soc 389 (may be taken concurrently); PDBio 205 or concurrent enrollment.
Methods of social work practice within a generalist framework; interventions with individuals. Successful completion of lab required.

363. Social Service Practice 1 Lab. (0.5:0:2) F, W, Sp Prerequisite: concurrent enrollment in SocW 362.

364. Social Service Practice 2. (3:3:0) For majors only. Prerequisite: SocW 362, 363; Soc 112; Soc 389 or Psych 342; concurrent enrollment in SocW 368.
Generalist social work practice; small group process as an agent for change and growth; task groups, therapy groups, and families as targets for change. Successful completion of lab required.

365. Social Welfare Programs and Services. (2:2:0) Prerequisite: SocW 260.
The Social Security Act, federal block grants, federal transfer programs, and the private social welfare sector.

366. Social Welfare Policy. (3:3:0) Prerequisite: SocW 260.
Social legislation processes; analysis of social policy and the knowledge available to social workers for involvement in social planning and policy change.

368. Social Service Practice 2 Lab. (0.5:0:2) F, W, Sp Prerequisite: concurrent enrollment in SocW 364.

390R. Special Topics in Social Work. (3:3:0 ea.) Prerequisite: SocW 362 or instructor's consent.
Course content varies from year to year.

391R. Special Topics in Contemporary Social Work. (3:3:0 ea.) Prerequisite: SocW 362 or instructor's consent.
Course content varies from year to year on basis of current need.

405. Introduction to Social Work Research Methods. (5:5:0) Independent Study also.
Qualitative and quantitative designs. Problem formulation, data collection, statistical analysis, writing, and presenting results.

462. Social Service Practice 3. (4:3:1) For majors only. Prerequisite: SocW 362, 364, and concurrent enrollment in 496R.
Generalist social work practice; macrolevel practice at organizational and community levels.

463R. Child Welfare Services. (3:3:0 ea.) Prerequisite: SocW 362 or instructor's consent.
Theory and practice of child protection, adoption, foster care, etc.

464. Intervention with Clients of Diversity. (3:3:0) Prerequisite: SocW 362 or instructor's consent.
Specific factors affecting social work intervention with clients of minority status, i.e., ethnicity, culture, race, lifestyle, etc.

470. Substance Abuse. (2:2:0) F
Historical/social overview of substance use in America and its associated problems; overview of each major drug type. Specific issues associated with use and its effects on minorities, women, and children.

496R. Academic Internship: Senior Field Experience in Social Work. (1–10:1:9 ea.) Prerequisite: SocW 362, 364, PDBio 205, and concurrent enrollment in 462.
Practical experience in social service agencies; relationship between theoretical concepts and practice.

500-Level Graduate Courses (available to advanced undergraduates)

550. Crisis Intervention. (3:3:0) F, W
Assessment and intervention in crisis situations with clients.

567. Social Services for the Aging. (2:2:0) Prerequisite: instructor's consent.
Process and impact of social service delivery systems on the aged.

580. Social Work in the School Setting. (3:3:0) F, W
Overview of knowledge and skills essential to the practice of social work in educational settings; emphasizes practical interventions when working with student/family/teacher/community resources.

595R. Directed Readings. (1–3:0:0 ea.) Prerequisite: instructor's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Social Work Faculty

Professors

Cox, Shirley E. (1995) BA, Brigham Young U., 1962; MSW, Howard U., 1967; DSW, U. of Utah, 1986.
Matheson, Kenneth W. (1995) BS, Brigham Young U., 1967; MSW, DSW, U. of Utah, 1970, 1976.
Pehrson, Kyle Lynn (1990) BS, Weber State Coll., 1969; MSW, U. of Utah, 1971; DSW, Catholic U. of America, 1980.
Seipel, Michael M. O (1982) BS, MSW, U. of Utah, 1974, 1976; PhD, Cornell U., 1982.

Associate Professors

Marett, Kevin M. (1992) BS, Brigham Young U., 1982; MSW, U. of Utah, 1985; PhD, Purdue U., 1989.
Norman, Judith L. (1990) BS, Brigham Young U., 1970; BS, Portland State U., 1972; MSW, DSW, U. of Utah, 1978, 1990.
Spaid, Wanda M. (1988) BA, Bethel College, 1969; MSW, U. of Minnesota, 1971; DSW, U. of Utah, 1988.
Walton, Elaine (1995) BS, MSW, Brigham Young U., 1966, 1986; PhD, U. of Utah, 1991.

Assistant Professors

Panos, Patrick T. (1999) BS, U. of Utah, 1985; MS, MSW, PhD, Brigham Young U., 1987, 1993.
Pettys, Gregory L. (1997) BS, MSW, MS, Brigham Young U., 1983, 1985, 1985; PhD, U. of Illinois, 1994.
Roby, Jini L. (1998) BS, MSW, JD, Brigham Young U., 1977, 1984, 1990.

Special Instructors

Louise Brown, Michael Cheney, Tamara Fackrell, J. P. Lilly, Wes Matheson, Bert Peterson, Allen Proctor, Wendy Sheffield, Tim Sorenson, Gwen Squires, Jay Steineckert, Karen Wong.

Emeriti

Blake, Reed H. (1967) BS, MS, Brigham Young U., 1957, 1959; PhD, Utah State U., 1969.
De Hoyos, Genevieve (1975) BA, Brigham Young U., 1954; MSW, Michigan State U., 1958; PhD, Indiana U., Bloomington, 1967.
Gibbons, W. Eugene (1969) BS, MSW, DSW, U. of Utah, 1960, 1963, 1974.
Pearson, Dale F. (1970) BS, MSW, U. of Utah, 1957, 1959; PhD, Brigham Young U., 1981.
Shumway, E. Gene (1975) BS, Brigham Young U., 1951; MSW, U. of Utah, 1953; DSW, Case Western Reserve U., 1969.
Tanner, Elvin R. (1970) BA, Brigham Young U., 1962; MSW, U. of Utah, 1964; PhD, Brigham Young U., 1969.
Wheeler, Barbara R. (1979) BS, MSW, DSW, U. of Utah, 1970, 1972, 1978.

Sociology

Vaughn R. A. Call, Chair
894 SWKT, (801) 422-4453

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of Sociology are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Sociology explores social life and the social causes and consequences of human behavior. Sociologists study people, their organizations, and their cultures. The organizations include families, tribes, communities, and societies, along with a variety of social, religious, political, and business institutions. The study of culture examines language, beliefs, and knowledge in societies.

Career Opportunities

Sociologists may be involved in the scientific study of deviance, family, minority groups, communities, or any of a variety of other subject areas. Some sociologists conduct surveys or social experiments. Growing numbers apply sociological knowledge in corrections and penology, education, public relations in industry, and regional and community planning. Some study urban or rural settings, and cross-national research is increasing.

One of the primary subject areas in the social sciences, sociology is a broad liberal arts major, rather than a narrow occupational specialty. Students who major in sociology are not trained for a single occupation, but instead they are qualified for a wide range of jobs and graduate programs. Job opportunities are greater for students with skills in research methods and social data analysis.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Sociology
Emphasis (optional):
Research and Analysis
Minors Sociology (General)
Sociology Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Sociology
PhD Sociology

For more information see the BYU 2003–2004 Graduate Catalog.

BS Sociology (39 hours*)

Major Requirements

1. At least 9 hours of sociology major courses must be taken in residence at BYU.
2. Complete the following core courses:
   Soc 111, 300, 306, 310, 311, 350.
3. Complete three courses from the following:
   Soc 420, 421, 422, 424, 429, 450, 460, 470, 481.
4. Complete an additional 12 hours of sociology courses.

*Hours include courses that may fulfill GE or university requirements.

BS Sociology: Research and Analysis Emphasis (41 hours*)

We are in a high-tech era. Information gathering, data analysis, and distribution of information are prerequisites for any informed person, group, or corporate entity. This emphasis gives specific hands-on experience with professional researchers in each of these phases of information utilization.

Major Requirements

1. At least 9 hours of sociology major courses must be taken in residence at BYU.
2. Complete the following core courses:
   Soc 111, 300, 306, 310, 311, 350.
3. Complete three courses from the following:
   Soc 420, 421, 422, 424, 429, 450, 460, 470, 481.
4. Complete the following:
   Soc 303R, 399R.
5. Complete one course from the following:
   Soc 405, 406.
6. Complete one course from the following:
   Soc 404, 408.
7. Complete one additional course within sociology.

*Hours include courses that may fulfill GE or university requirements.

Minor Sociology (General) (15 hours*)

Minor Requirements

1. Complete the following:
   Soc 111.
2. Complete 12 hours from any sociology courses not already completed.

*Hours include courses that may fulfill GE or university requirements.

Minor Sociology Teaching (21 hours*)

Minor Requirements

1. Complete the following:
   Soc 111, 112, 326.
2. Complete one course from the following:
   Soc 350, 420.
3. Complete 9 hours from any sociology courses not already completed.

Recommended Courses

Soc 323, 367, 380, 383, 389, 422.

*Hours include courses that may fulfill GE or university requirements.

Sociology (Soc)

Undergraduate Courses

111. Introductory Sociology. (3:3:0) Honors and Independent Study also.
Social group influence; social interaction, processes, organization, and change; family, religion, government, population, culture, race relations.

112. Current Social Problems. (3:3:0) Honors and Independent Study also.
Individual deviance (violence, insanity, drugs, sex, crime, etc.) and social disorganization (poverty, race and sex discrimination, divorce, overpopulation, etc.). Conditions, causes, solutions.

113. Multicultural America. (3:3:0) F, W, Sp, Su
Diverse cultural heritages in the United States. Cultures studied scientifically will include African American, Hispanic, Asian American, and Native American.

211. Family Interaction. (3:3:0)
The family system through life cycle stages; intrafamily processes; stresses and challenges; individual and family well-being; family interaction with societal systems.

300. Methods of Research in Sociology. (3:3:0) Independent Study also. Prerequisite: Soc 111 or equivalent or instructor's consent.
Tools of social research; survey, experimentation, content analysis, secondary analysis, qualitative research, evaluation research, data processing and analysis, and report writing.

303R. Introduction to Social Science and Statistical Packages. (2:2:2 ea.)
Analytical work with social science variables using computer packages such as SAS or SPSSX (see section in current class schedule for designated statistical package). Lab.

306. Applied Social Statistics. (3:3:0) Independent Study also.
Introductory descriptive and inferential statistics; graphing, central tendency, variation, hypothesis testing and parameter estimation, measures of association, correlation, and regression.

310. Development of Sociological Theory. (3:3:0) Prerequisite: Soc 111, 300, 306.
Contributions of outstanding theorists, such as Durkheim, Weber, Spencer, Marx, Simmel, Cooley, and Mead to development of sociology.

311. Contemporary Sociological Theory. (3:3:0) Prerequisite: Soc 111, 310.
Introduction and evaluation of current theories of social behavior (why people do what they do).

318. (Soc-MFHD 333) Adolescent Development in the Family and Other Social Contexts. (3:3:0)
Examining developmental and social contexts of adolescents, emphasizing the importance of the family. Other contexts include peers, religion, community, schools, and cross-cultural issues.

323. Racial and Minority-Group Relations. (3:3:0) Prerequisite: Soc 111.
Social psychological and social structural analysis of racial and ethnic relations; prejudice, discrimination, responses, protests, current issues.

325. Introduction to the Sociology of Religion. (3:3:0) Prerequisite: Soc 111.
Origin, growth, and organizational development of religious groups; church activity, conversion, secularization, religious change.

326. Sociology of Education. (3:3:0)
Social origins of goals and curricula; theories of change and control; the nature of achievement in education.

327. Sociology of the LDS Church and Its People. (3:3:0)
The LDS Church from a social science perspective, including the Church as a new religious movement; LDS culture; the institutionalization process.

328. Sociology of Sport. (3:3:0)
Analysis of the sociological aspects of sport and their relationship to politics, economics, stratification, education, and family. Focus on concepts, theory, and related research.

329. Medical Sociology. (3:3:0) Prerequisite: Soc 111 or Psych 111.
Social epidemiology, the sick role, sociocultural definitions of and responses to illness, and the organization of medical-health delivery systems.

335. Social Change and Modernization in Latin America. (3:3:0)
Contemporary changes in the social institutions and cultures as related to the modernization process.

345. World Populations. (3:3:0) Prerequisite: Soc 111.
Fertility, mortality, and migration patterns of world populations as they relate to current social, economic, political, and religious issues.

350. (Soc-Psych) Introduction to Social Psychology. (3:3:0) Independent Study also.
Conformity and obedience; socialization, norms, roles; attitudes, leadership, group processes.

351. Fundamentals of Self-Image and Self-Esteem. (3:3:0) Prerequisite: Soc 111.
Social bases and measurement of self-concept. Building positive self-definitions; applications in family, school, and work settings; low self-esteem and deviance.

352. (Soc-Psych) Applied Social Psychology. (3:3:0) Prerequisite: Soc-Psych 350.
Applying social psychological theory, research, and methods to such domains as law, business, education, the media, mental health, and physical health.

358. Effective Social Relations. (3:2:2) Prerequisite: Soc 111.
Development and practice of skills in social relations, including giving and receiving feedback, conflict resolution, negotiation and bargaining, and leadership choices.

365. Sociology of Aging. (3:3:0) Independent Study also.
Demographic and social factors related to aging: agencies, serving older citizens, and role of community in solving problems of aged. Required for students in gerontology minor and/or certificate programs.

367. Sociology of Gender. (3:3:0) Prerequisite: Soc 111.
Gender in social institutions: family, social hierarchies, economics, education, organizations, religion, and science.

370. The Sociology of Urban Life. (3:3:0) Prerequisite: Soc 111.
Norms, social controls, and social processes in urban areas in both historical and contemporary perspectives.

380. Deviant Behavior and Social Control. (3:3:0) Prerequisite: Soc 111.
Theory and research related to deviance. Specific topics include psychosis, addiction, homosexuality, violence, and rape, among others.

383. Juvenile Delinquency. (3:3:0) Prerequisite: Soc 111.
Lawlessness of children and adolescents: causation, treatment, prevention, and outlook.

389. Social Aspects of Mental Health. (3:3:0) Independent Study also. Prerequisite: Soc 111.
Personality disorders and emotional maladjustments that originate in group life; social causation, treatment, and prevention of mental illness.

390R. Special Topics in Contemporary Sociology. (1–3:3:0 ea.) Prerequisite: instructor's consent.
Course content varies from year to year.

398R. People and Cultures Around the World. (1–3:Arr.:Arr. ea.)
Sociological aspects of societies included in BYU Travel Study tours.

399R. Academic Internship. (1–9:0:0 ea.) F, W, Sp, Su
Individualized work or volunteer experience in either a research setting or some kind of field placement with an organization.

404. Qualitative Research Methods. (3:3:0) Prerequisite: Soc 300.
Purposes, methods, and limitations of qualitative research. Includes participant observation and hermeneutics skills.

405. Multiple Regression Analysis and Social Science Computing. (3:3:0) Prerequisite: Soc 306 or instructor's consent.
Data analysis and computer use in sociology; least squares and logistic regression techniques; SPSS and its use in conducting data analysis. Research report required.

406. Intermediate Applied Social Statistics. (3:3:0) Prerequisite: Soc 306, 405.
Introduction to structural equation models, analysis of variance and covariance, and factor analysis.

408. Survey Research and Social Measurement. (3:3:0) Prerequisite: Soc 300.
Survey research design, measurement, and techniques in the behavioral sciences; research and sampling designs and measurement techniques.

420. Understanding Modern Societies. (3:3:0) Prerequisite: Soc 111, 300, 306, 310, 311.
Comparative-historical theory and research on the political, economic, social, and cultural processes in the formation, social organization, and future prospects of modern societies.

421. Complex Organizations. (3:3:0) Prerequisite: Soc 111, 300, 306, 310, 311.
Complex formal organization perspectives. Bureaucracy, management, structure, and change in private and public sectors. Formation, growth, and partitioning of organizational fields. Writing intensive.

422. Social Stratification. (3:3:0) Prerequisite: Soc 111, 300, 306, 310, 311.
Distributions of money, prestige, and power as they relate to life chances, lifestyle, other social institutions, and social justice.

424. Political Sociology. (3:3:0) Prerequisite: Soc 111, 300, 306, 310, 311.
Analysis of power and decision-making, political institutions, grass root politics, stratification, and political activity, social movements and revolutions, science/religion and politics. Writing intensive.

429. Theory of Social Change and Modernization. (3:3:0) Prerequisite: Soc 111, 300, 306, 310, 311.
Social change in contemporary society from diverse theoretical points of view.

445. Labor Markets in Developing Countries. (3:3:0) Prerequisite: Soc 306.
Individual, national, and global forces reshaping labor markets and employment opportunities in developing countries.

450. The Family and Social Change. (3:3:0) Prerequisite: Soc 111, 310, 311.
Changing patterns of family-related behaviors, functions, and forms. Demographic, economic, and ideological forces shaping the family.

460. Marriage and Family Interaction. (3:3:0) Prerequisite: Soc 111.
Advanced appraisal of courtship, marriage relationships, and family interaction. Primarily for majors in sociology, marriage, family, and human development, and related fields.

470. Sociology of Law. (3:3:0) Prerequisite: Soc 111, 310, 311.
Law as an institution; influence of law on behavior; relationship between law and institutions; role of law in social change.

481. Crime, Justice, and Corrections. (3:3:0) Prerequisite: Soc 111.
Nature and extent of criminal behavior; current theory and research related to causes of crime and treatment of criminals.

500-Level Graduate Courses (available to advanced undergraduates)

515. Seminar in Sociological Practice. (3:3:0) Prerequisite: graduate status; Soc 315 or equivalent; 600, 606, 610, 611.
Uses of sociological theory and methods to deal with individual, organizational, and societal problems. Techniques for communicating such knowledge to the nonsociologist.

524. Advanced Political Sociology. (3:3:0)
Social basis of political behavior. Modern theories and research concerning use of power and decision making.

525. Sociology of Religion. (3:3:0) Prerequisite: Soc 111, 325, or instructor's consent.
Influences of social factors in the development of various religious systems.

527. Sociology of the LDS Church and Its People. (3:3:0)
An advanced analysis of the LDS Church from a social science perspective, including the Church as a new religious movement; LDS culture; the institutionalization process.

528. Sociology of Rural Communities. (3:3:0) F, W Prerequisite: Soc 310, 311, 370, or instructor's consent.
Review and critique of major theoretical and methodological approaches to the study of community, with a focus on rural communities.

530. Sociology of International Development. (3:3:0)
Major theoretical paradigms of development with strategies and practical application in the international setting.

550. (Soc-MFHD) Contemporary Family Theories. (3:3:0) Prerequisite: MFHD 250, Soc 310, 311; or equivalents.
Introduction to basic micro, macro, and processual approaches to the study of the family; social and political theory on the family; and philosophical issues and assumptions underlying family theory, research, and practice.

561. The Family Institution. (3:3:0)
The family in different societies; problems created by various family systems.

565. The Individual and Family in Later Years. (3:3:0)
Developmental aspects of aging, focusing on the biophysical, cognitive, social, affective, and pathological dimensions in people aged 50 and over.

590R. Special Topics in Sociology. (1–3:3:0 ea.) Prerequisite: instructor's consent.
Course content varies from year to year.

595R. Directed Readings. (1–3:0:6 ea.)
Individualized reading program supervised by faculty member. Pass/Fail only.

598R. Pro-Seminar. (1:1:0 ea.) F, W
Current developments in sociology including research, proposals, professional meetings, teaching, and finding a job.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Sociology Faculty

Professors

Bahr, Howard M. (1973) BA, Brigham Young U., 1962; MS, PhD, U. of Texas, Austin, 1964, 1965.
Bahr, Stephen J. (1973) BS, MS, Brigham Young U., 1968, 1969; PhD, Washington State U., 1972.
Call, Vaughn R. A. (1993) BS, MS, Brigham Young U., 1970, 1974; PhD, Washington State U., 1977.
Chadwick, Bruce A. (1972) BA, MA, PhD, Washington U., 1964, 1965, 1967.
Cornwall, Marie (1986) BA, U. of Utah, 1971; MS, Brigham Young U., 1977; PhD, U. of Minnesota, 1985.
England, J. Lynn (1970) BA, MA, U. of Utah, 1965, 1967; PhD, U. of Pittsburgh, 1971.
Heaton, Tim B. (1980) BS, MS, Brigham Young U., 1974, 1975; PhD, U. of Wisconsin, Madison, 1979.
Jacobson, Cardell K. (1981) BS, Brigham Young U., 1966; MA, PhD, U. of North Carolina, Chapel Hill, 1969, 1971.
Johnson, Barry L. (1965) BS, MS, Brigham Young U., 1963, 1965; PhD, U. of North Carolina, 1977.

Associate Professors

Brown, Ralph B. (1998) BS, MS, Utah State U., 1986; PhD, U. of Missouri, Columbia, 1992.
Forste, Renata T. (1995) BS, MS, Brigham Young U., 1984, 1986; PhD, U. of Chicago, 1992.
Hoffmann, John P. (1999) BS, James Madison U., 1984; MS, American U., 1985; PhD, State U. of New York, Albany, 1991; MPh, Emory U., 1994.
Johnson, Richard E. (1976) BS, Brigham Young U., 1971; MA, PhD, U. of Washington, 1972, 1976.
Knapp, Stan J. (1995) BA, MS, Brigham Young U., 1987, 1989; PhD, Florida State U., 1996.

Ward, Carol (1990) BA, MA, North Texas State U., 1973, 1976; PhD, U. of Chicago, 1992.

Assistant Professors

Dufur, Mikaela J. (2000) BA, Brigham Young U., 1994; MA, PhD, Ohio State U., 1996, 2000.

Holland, Kimberlee B. (2002) BA, MA, Brigham Young U., 1995, 1997; PhD, Purdue U., 2002.

Horne, Christine (2000) BS, Brigham Young U., 1984; JD, Columbia Law School, 1989; MS, PhD, U. of Arizona, 1994, 1997.

Emeriti

Duke, James T. (1963) BA, MA, U. of Utah, 1957, 1958; PhD, U. of California, Los Angeles, 1963.

Kunz, Phillip R. (1968) BS, MS, Brigham Young U., 1961, 1962; PhD, U. of Michigan, 1967.

Larsen, Vernon W. (1952) BA, MA, Brigham Young U., 1949, 1950; PhD, Cornell U., 1957.

Peterson, Evan T. (1953) BS, MS, Brigham Young U., 1953, 1953; PhD, U. of Michigan, 1959.

Rollins, Boyd C. (1963) BS, Utah State U., 1953; MS, Brigham Young U., 1958; PhD, Cornell U., 1961.

Seggar, John F. (1967) BS, Brigham Young U., 1962; MA, PhD, U. of Kentucky, 1964, 1968.

Smith, Wilford E. (1947) BA, U. of Utah, 1943; MA, Brigham Young U., 1948; PhD, U. of Washington, 1952.

Thomas, Darwin L. (1972) BA, MA, Brigham Young U., 1962, 1964; PhD, U. of Minnesota, St. Paul, 1968.

South American Indian Languages

See Center for Language Studies.

Spanish and Portuguese

J. Halvor Clegg, Chair
4050 JKHB, (801) 422-2837

College of Humanities Advisement Center
3078 JKHB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Spanish and Portuguese are open enrollment. However, special limitations apply for teaching and translation majors.

The Discipline

The Spanish and Portuguese romance languages and literatures dominate the Iberian Peninsula, major parts of Africa, and the southern portion of the new world from Mexico to the Magellan Straits. These languages, spoken by over 450 million people in twenty-one countries, provide a wide spectrum of cultural, linguistic, and literary variety. Spanish and Portuguese represent vibrant literature that stands at the forefront of twentieth-century excellence and innovation, a linguist's paradise of dialects, rapid change, and development.

Such breadth—plus some 35 million speakers within the borders of the United States itself—gives multiple opportunities for developing skill in the spoken language, as well as in listening, reading, writing, and translation. Studying the Iberian roots of this large and important part of the population and learning about the people's perception of life also brings greater understanding of their values and their struggle for identity. A Spanish or Portuguese major makes for a demanding, intriguing, and pleasurable experience.

Career Opportunities

The field of teaching has always provided good employment opportunities for Spanish majors. In addition, opportunities for both Spanish and Portuguese have been found in government service (translation, U.S. State Department, CIA, FBI, Border Patrol, Peace Corps, NSA, USIA), business, social work, airlines, banking, etc. Many majors go on to professional schools (law, medicine, dentistry, business, etc.), where a liberal arts background is advised. For employment in fields other than teaching, a strong minor or a second major in the employment area is strongly encouraged. Teaching majors are required to complete a teaching minor.

General Information

The Department of Spanish and Portuguese strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) . . . . . 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music
(one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Portuguese
BA	Spanish
BA	Spanish Teaching
BA	Spanish Translation
Minors	Portuguese
	Spanish
	Spanish Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Portuguese
MA	Spanish
MA	Language Acquisition (Spanish and Portuguese)

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

Spanish Resource Center

164 University Parkway Center, (801) 378-8107
E-mail: spanish_resource@email.byu.edu

The Ministry of Education and Culture of Spain, in connection with the Department of Spanish and Portuguese and the Center for the Improvement of Teacher Education and Schooling (CITES), operates the Spanish Resource Center (Centro de Recursos). The purpose of the center is to provide an ample supply of books, computer programs, and didactic materials, both printed and audiovisual, related to the teaching of Spanish language and literature. Researchers, professors, students, educational institutions, coordinators, administrators, and in general all those who may be interested in the knowledge and promotion of Spanish are welcome. To increase the prestige of the Spanish language academically as well as socially, the Spanish Resource Center

- sponsors workshops, seminars, and work groups on topics related to teaching Spanish and researching linguistics and literature;
- organizes conferences, film series, recitals, and cultural activities in general that relate to the Spanish language and culture; and
- promotes and participates in all initiatives that are deemed appropriate and that favor acquisition and use of the Spanish language by students at different educational levels.

Foreign Language Student Residence

The Foreign Language Student Residence provides live-in opportunities for students in Spanish and Portuguese. A twenty-four-hour-a-day Spanish or Portuguese rule assures participants intensive use of the language, under the direction of native speakers. See the department secretary at 4050 JKHB for information.

Language Skills Development

A program to improve and monitor all language skills at each level of course work has been developed by the department, and a final oral proficiency examination is required of all graduating seniors. Writing skills in Spanish or Portuguese courses will advance from writing exercises and short messages in 100-level courses to original short themes in 200-level classes. Papers in the language at the 300-level and more extensive research and vocabulary and full control of structures at the 400-level will complete the program.

Minor, Double Major, or Approved Supporting Course Work Required for Spanish or Portuguese Majors

All Spanish and Portuguese majors are required to complete either a minor (from any department in the university), 15 hours of approved supporting course work, or a double major.

Nonteaching majors who do not wish to complete a formal minor may substitute at least 15 hours of courses from among the following related fields: a second modern foreign language (upper-division courses only), Latin, Greek, English (beyond the GE requirement), linguistics, classical civilization, Latin American history or geography, Spanish/Portuguese history or geography, humanities, archaeology of Spain/Portugal or Latin America, comparative literature, or other areas approved by the department chair.

Nonteaching and nontranslation majors also may meet their minor requirement by completing 15 additional hours consisting of elective Spanish/Portuguese courses or (strongly recommended) a combination of Spanish/Portuguese electives and interdisciplinary work. In all cases these courses must form a coherent program and *must be preapproved* by the department chair.

A double major is an acceptable alternative to a minor.

Foreign Residency

The department strongly recommends that all majors participate in an extended (at least two continuous months) and intensive language and culture experience in a Spanish- or Portuguese-speaking country or area.

A student should complete this requirement by:

1. Residency abroad (may include a Spanish or Portuguese LDS mission, attendance at a foreign university, an advanced exchange program, or similar intensive foreign residence).
2. Participating in BYU Study Abroad Programs in Spain, Portugal, or Latin America.
3. Participating in individual or group-arranged internship programs abroad as approved by the department.

Students unable to participate in one of these programs must spend at least one year (two semesters) in the Foreign Language Student Residence, pledging to use only Spanish or Portuguese within the residence. Prerequisite to this experience is Span/Port 201 or its equivalent; any exceptions must be approved by the department. For further information contact the department secretary or the Foreign Language Student Residence Office, 1102 JKHB, (801) 422-3765.

Portuguese

BA Portuguese (49–68 hours minimum*)

Major Requirements

1. At least 15 hours of upper-division major credit must be taken in residence at BYU.
2. Meet the foreign residency requirement.
3. Complete a minor (approximately 16–21 hours), second major (approximately 30–60 hours), or supporting course work (15 hours).

   Note: Latin American Studies or Spanish Studies minors: Port 321, 339, 345 or 355, and 441 or 451 meet requirements for both the Portuguese major and the area studies minor. Only one of these courses may be double counted (applied to both the major and the minor). Students wishing to complete a Portuguese major and one of these area studies minors must take an additional 6–9 hours chosen from the approved electives for either major or minor. Consult the department and the advisement center for clarification of the choices available to you.
4. Complete the following prerequisite courses:
   Port 101, 102, 201, 211R.
   And complete one course from the following:
   Port 202, 315.

   Note 1: Students with foreign residence experience should take Port 315.

   Note 2: Prerequisite courses may be waived for those having sufficient proficiency with the language.
5. Complete the following:
   Port 321, 322, 339, 441, 451.
6. Complete one course from the following:
   Port 345, 355.
7. Complete 12 hours from the following:
   Port 326, 329, 345, 355, 439R, 442, 449R, 452, 453, 459R, 461R, 462R, 480R, 490, 520, 521, 522, 529R.

*Hours include courses that may fulfill GE or university requirements.

Minor Portuguese (18 hours)

Minor Requirements

1. Complete the following:
   Port 321, 339.
2. Complete one course from the following:
   Port 345, 355.
3. Complete one course from the following:
   Port 441, 451.
4. Complete 6 additional upper-division hours from the courses outlined for the major. Port 315 credit may be applied to the Portuguese minor but is not required.

Portuguese (Port)

Undergraduate Courses

101, 102. First-Year Portuguese. (4:5:1 ea.)
Pronunciation, conversation, reading, and fundamentals of grammar. Specific attention to Portuguese as the language of Brazil.

199R. Academic Internship. (1–3:0:0 ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
On-the-job experience evaluated by supervisor and posted on student's transcript.

201. Intermediate Portuguese Reading and Conversation. (4:5:0) Prerequisite: Port 102 or three units of high school Portuguese.
Review of grammar. Reading, writing, conversation.

202. Fourth-Semester Portuguese: Reading and Comprehension. (4:5:0) Prerequisite: Port 201.
Fourth-semester class introducing grammar and culture through study of literature. Not for returned missionaries. Culmination of GE Mathematics/Foreign Language requirement.

211R. First-Semester Conversation. (2:2:1 ea.) Prerequisite: Port 102 or equivalent. Recommended: concurrent enrollment in Port 201.

212. Second-Semester Conversation. (2:2:1) Prerequisite: Port 211 or equivalent.

311R. Third-Year Conversation. (2:2:1 ea.) Prerequisite: Port 211 or equivalent.
Tools course to help students improve oral proficiency. Will not count for major or minor.

315. Intermediate Portuguese Grammar, Reading, and Culture. (3:3:0)
Introduction of culture, literature, and grammatical concerns through reading short stories, novels, and drama in Portuguese. First class for returned missionaries.

Note: Native speakers should take Port 321.

321, 322. Third-Year Portuguese Grammar and Composition. (3:3:0 ea.) Prerequisite: Port 202 or 302, plus 16 hours of Portuguese or the equivalent.

326. Portuguese Phonetics and Pronunciation. (3:3:3) Prerequisite: Port 321 or equivalent.
Underlying concepts of Portuguese speech production and applications to pronunciation.

329. Survey of Luso-Brazilian Linguistics. (3:3:0) Prerequisite: Port 321 or equivalent.
Introduction to linguistics of Portuguese: phonetics, phonology, morphology, syntax, semantics, history of the Portuguese language, philology, dialectology, sociolinguistics, and psycholinguistics.

339. Introduction to Portuguese and Brazilian Literature. (3:3:0) Prerequisite: Port 321 or equivalent.
Readings in modern literature; formal literary analysis.

345. Portuguese Civilization. (3:3:0) Prerequisite: Port 321 or equivalent.
Culture, history, art, music, and traditions of Portugal.

355. Brazilian Civilization. (3:3:0) Prerequisite: Port 321 or equivalent.
Culture, history, art, music, and traditions of Brazil.

395R. Contemporary Culture. (1–3:0:0 ea.) For Study Abroad programs only. Prerequisite: Port 201 or equivalent.
Contemporary Portuguese or Brazilian culture: the people and their customs and institutions.

399R. Academic Internship: Portuguese Language Field Experience. (1–6:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience.

439R. Luso-Brazilian Theatre Production. (3:3:0 ea.)
Theory and practice of dramatic performance. Includes participation in play to be performed during semester.

Note: No more than 3 hours of 439R credit may count toward any degree.

441. Survey of Portuguese Literature. (3:3:0) Prerequisite: Port 339 or equivalent.
Literary periods, genres, and great writers of Portugal.

442. Camões. (3:3:0) Prerequisite: Port 441 or equivalent.

449R. Special Topics in Portuguese Literature. (3:3:0 ea.) Prerequisite: Port 441, 451, or equivalent.
Specific topics in Portuguese (Peninsular) literature. Course content will vary each semester to offer optimum exposure to all areas of Portuguese literature.

451. Survey of Brazilian Literature. (3:3:0) Prerequisite: Port 339 or equivalent.
Literary periods, genres, and great writers of Brazil.

452. Machado de Assis. (3:3:0) Prerequisite: Port 451 or equivalent.

453. Twentieth-Century Brazilian Literature. (3:3:0) Prerequisite: Port 441, 451, or equivalent.

459R. Special Topics in Brazilian Literature. (3:3:0 ea.) Prerequisite: Port 441, 451, or equivalent.
Specific topics in Portuguese (Brazilian) literature. Course content will vary each semester to offer optimum exposure to all areas of Brazilian literature.

461R. African Literature in Portuguese. (3:3:0) Prerequisite: Port 339 or equivalent.
Modern authors from the five African nations whose official language is Portuguese: Angola, Cabo Verde, Guiné Bissau, Mozambique, and the two-island republic São Tomé and Príncipe. Authors include José Craveirinha, Mia Couto, Noémia de Sousa, José Tenreiro, Castro Soromenho, Luandino Vieira, Pepetala, and Baltasar Lopes, among others.

462R. Literature of the Lusophone World. (3:3:0) Prerequisite: Port 339 or equivalent.
Authors from the eight nations whose official language is Portuguese, plus former colonies and present regions of important Portuguese influence. These include Luso-American and Azorean writers, as well as authors from East Timor (formerly Indonesia), Goa (India), and Macau (China).

480R. Directed Research in Portuguese. (1–3:Arr.:0 ea.) Prerequisite: written proposal subject to department approval. Independent Study only.
Under faculty member's direction, designing and conducting research project covering material not normally presented in regular course work. Research paper required. Total Port 480R credit toward bachelor's degree not to exceed 3 hours.

490. Senior Seminar in Portuguese. (1–3:0:0) Prerequisite: senior standing.
Bibliography, research, and writing of senior thesis. Recommended for students planning graduate studies in Portuguese.

491. Senior Proficiency Evaluation. (0:1:0)
Tool course to meet oral proficiency requirement for all majors. No major or minor credit.

500-Level Graduate Courses (available to advanced undergraduates)

520. Advanced Portuguese Grammar. (3:3:0) Prerequisite: Port 321.
Applying contemporary grammatical concepts to problems in Portuguese grammar.

521. Romance Philology. (3:3:0) Prerequisite: Port 321.
Comparative study of evolution of Latin into modern romance languages.

522. History of the Portuguese Language. (3:3:0) Prerequisite: Port 321.
Linguistic sources that contributed to formation of Portuguese.

529R. Special Topics in Portuguese Linguistics. (3:3:0 ea.) Prerequisite: Port 321.
Topics from semantics to dialectology to sociolinguistics.

599R. Academic Internship: Portuguese Internship. (1–3:0:0 ea.) For supervised internship credit on BYU Study Abroad programs only. Prerequisite: Port 321 and instructor's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Spanish

BA Spanish (58–79 hours minimum*)

Major Requirements

1. At least 18 hours of upper-division major credit must be taken in residence at BYU.
2. Meet the foreign residency requirement.
3. Complete a minor (approximately 16–21 hours), second major (approximately 30–60 hours), or supporting course work (15 hours).

   Note: Latin American Studies or Spanish Studies minors: Span 321, 339, 345 or 355, and 441 or 451 meet requirements for both the Spanish major and the area studies minor. Only one of these courses may be double counted (applied to both the major and the minor). Students wishing to complete a Spanish major and one of these area studies minors must take an additional 6–9 hours chosen from the approved electives for either major or minor. Consult the department and the advisement center for clarification of the choices available to you.
4. Complete the following prerequisite courses:
   Span 101, 102, 201, 211R, 212R.
   And complete one course from the following:
   Span 202, 315.

   Note 1: Students with foreign residence experience usually begin with Span 315.

   Note 2: Prerequisite courses may be waived for those having sufficient proficiency with the language.

5. Complete the following:
   Span 321, 322, 339, 441, 451.
6. Complete one course from the following:
   Span 345, 355.
7. Complete 18 hours from the following:
   Complete at least one linguistics course from the following:
   Span 326, 329, 421, 423, 425, 429R, 520, 521, 522, 529R.
   Complete at least one literature course from the following:
   Span 440, 443R, 444, 446R, 448R, 449R, 450R, 454R, 455R, 456R, 458R, 459R, 461.
   Complete four additional courses (12 hours) from the linguistics or literature electives above or from the following (Span 345 and 355 will not double count):
   Span 345, 355, 365, 377, 378, 395R, 438, 439R, 480R, 490.
8. Complete the following:
   Span 491.

   Note: The Senior Proficiency Evaluation is taken in connection with Span 491. It is expected that Spanish majors will pass with a rating of "advanced plus" or higher.

*Hours include courses that may fulfill GE or university requirements.

BA Spanish Teaching (80–102 hours minimum*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

Major Requirements

1. At least 18 hours of upper-division major credit must be completed in residence at BYU.
2. Meet the foreign residency requirement.
3. Complete an approved teaching minor (approximately 16–21 hours).
4. Complete the following prerequisite courses:
   Span 101, 102, 201, 211R, 212R.
   And complete one course from the following:
   Span 202, 315.

   Note 1: Students with foreign residence experience usually begin with Span 315.

   Note 2: These prerequisite courses may be waived for those having sufficient proficiency with the language.
5. Complete the following:
   Span 321, 322, 326, 339, 345, 355, 377, 378, 441, 451.

   Note: Span 377 and 378 must be taken before student teaching.
6. Complete 6 hours from the following courses:
   Span 329, 365, 395R, 421, 423, 425, 429R, 438, 439R, 440, 443R, 444, 446R, 448R, 449R, 450R, 454R, 455R, 456R, 458R, 459R, 461, 480R, 490, 520, 521, 522, 529R.
7. Complete the following:
   Span 491.

   Note: The Senior Proficiency Evaluation is taken in connection with Span 491. It is expected that Spanish majors will pass with a rating of "advanced plus" or higher.
8. Complete the Professional Education Component (25–26 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

BA Spanish Translation (55–76 hours minimum*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

Major Requirements

1. At least 18 hours of upper-division major credit must be completed in residence at BYU.
2. Meet the foreign residency requirement.
3. Complete a minor (approximately 16–21 hours), second major (approximately 30–60 hours), or supporting course work (15 hours).
4. Complete the following prerequisite courses:
   Span 101, 102, 201, 211R, 212R.
   And complete one course from the following:
   Span 202, 315.

   Note 1: Students with foreign residence experience usually begin with Span 315.

   Note 2: These prerequisite courses may be waived for those having sufficient proficiency with the language.

   Note 3: Students wishing to major in Spanish translation and interpretation must apply for admission to the program and pass an entrance exam in Spanish and English. Contact the department secretary the first week of February each year to obtain the official date and place of the exam.

   Note 4: Latin American Studies or Spanish Studies minors: Span 321; 339; 345 or 355; 441; and 451 meet requirements for both the Spanish translation major and the area studies minor. Only one of these courses may be doubly counted (applied for both the major and minor). Students wishing to complete a Spanish major and one of these area studies minors must take an additional 6–9 hours chosen from the approved electives for either major or minor. Consult the department and the advisement center for clarification of the choices available.
5. Complete the following:
   Span 321, 322, 339, 425, 441, 451.

   Note: Span 321 and 322 must be completed with a grade of B or better.
6. Complete one course from the following:
   Span 345, 355.
7. Complete the following courses in sequence:
   Span 415A, 415B, 416A, 416B, 417A, 417B, 418.

   Note: These seven courses require a minimum of a B grade. (Span 322, 425, and either Span 345 or 355 must be taken before Span 415A.)
8. Complete 3 hours from the following:
   Span 326, 329, 345, 355, 365, 377, 378, 395R, 421, 423, 429R, 438, 439R, 440, 443R, 444, 446R, 448R, 449R, 450R, 454R, 455R, 458R, 459R, 461, 480R, 490, 520, 521, 522, 529R.
9. Complete the following:
   Span 491.

   Note: The Senior Proficiency Evaluation is taken in connection with Span 491. It is expected that Spanish majors will pass with a rating of "advanced plus" or higher.

*Hours include courses that may fulfill GE or university requirements.

Minor Spanish (18 hours)

Minor Requirements

1. Complete the following:
   Span 321, 339.
2. Complete one course from the following:
   Span 345, 355.
3. Complete one course from the following:
   Span 441, 451.
4. Complete 6 hours from upper-division courses outlined for the major. Span 315 credit may be applied to the Spanish minor but is not required. Span 301 will not count toward this minor.

Minor Spanish Teaching (21 hours)

Minor Requirements

1. Complete the following:
   Span 321, 326, 339, 377, 378.

   Note: Span 377 and 378 must be taken before student teaching. Span 377 will be waived for students majoring in another language who have had the course in that language. Students who waive the class will need to take 3 additional elective hours from the 300-, 400-, or 500-level courses in Spanish.
2. Complete one course from the following:
   Span 345, 355.
3. Complete one course from the following:
   Span 441, 451.
4. Complete the following:
   Span 491.

   Note: The Senior Proficiency Evaluation is taken in connection with Span 491. It is expected that students will pass with a rating of "advanced plus" or higher.

Spanish (Span)

Undergraduate Courses

100A. Introductory Spanish. (2:3:1)
Independent Study also. First semester for those who have had no Spanish and desire maximum time for assimilation.

100B. Second Semester, Introductory Spanish. (2:3:1) Prerequisite: Span 100A.
Continuation of Span 100A.

100C. Third Semester, Introductory Spanish. (2:3:1) Prerequisite: Span 100B.
Continuation of Span 100B.

100D. Fourth-Semester, Introductory Spanish. (2:3:1) Prerequisite: Span 100C.
Continuation of Span 100C.

101, 102. First-Year Spanish. (4:5:2 ea.) For students with little or no previous Spanish.
Fundamentals of Spanish, emphasizing communication. (Accelerated sections available for those with more language experience.) Placement exam required.

121. Intensive Reading in Spanish. (4:4:0) For students with little or no Spanish.
Developing reading skills in area of student's specialization. Graduate students will be graded pass/fail; undergraduate students will receive letter grades.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

201. Second-Year Spanish. (4:5:1) Independent Study also. Prerequisite: Span 102, three units of high school Spanish, or placement by diagnostic test.
Review of grammar, reading, writing, conversation.

202. Fourth-Semester Spanish: Reading and Comprehension. (4:5:0) Prerequisite: Span 201.
Fourth-semester class introducing grammar and culture through study of literature. Not for returned missionaries.

211R. First-Semester Conversation. (2:2.5:1 ea.) Prerequisite: Span 102 or equivalent. Recommended: concurrent enrollment in Span 201.

212R. Second-Semester Conversation. (2:2.5:1 ea.) Prerequisite: Span 211R or equivalent. Recommended: concurrent enrollment in Span 201 or 202.

301. Premajor/Minor Skills Review. (3:3:0) Prerequisite: Span 202 or equivalent.
Additional work in grammar, conversation, composition, and listening comprehension. Strongly recommended for students who desire to major or minor in Spanish but whose scores on a diagnostic exam show that they are not prepared for Span 321. Will not count for major or minor.

311R. Spanish Oral Proficiency Preparation. (2:2:1 ea.) Prerequisite: Span 212 or equivalent.
Tools course to help students meet oral proficiency requirements for major and minor. Will not count for major or minor.

315. Intermediate Spanish Grammar Review, Reading, and Culture. (3:3:0)
Introduction of culture, literature, and grammatical concerns through reading short stories, novels, and drama in Spanish. First class for returned missionaries.

Note: Native speakers should take Span 321.

321. Third-Year Spanish Grammar and Composition. (3:3:0) Prerequisite: Span 202, 302, or equivalent.
Intensive study and practice with Spanish grammar, vocabulary, and writing.

322. Third-Year Writing in Spanish. (3:3:0) Prerequisite: Span 321.
Study and practice of different writing styles; developing research skills. Strongly recommended to be taken shortly after Span 321.

326. Spanish Phonetics and Pronunciation. (3:3:0) Prerequisite: Span 202, 302, or equivalents.
Spanish sound system; underlying concepts of Spanish speech production and applications to pronunciation.

329. Survey of Hispanic Linguistics. (3:3:0) Prerequisite: Span 321 or equivalent.
Introduction to linguistics of Spanish: phonetics, phonology, morphology, syntax, semantics, history of the Spanish language, philology, dialectology, sociolinguistics, and psycholinguistics.

339. Introduction to Spanish Literature. (3:3:0) Independent Study also. Prerequisite: Span 202, 302, or equivalent. Course is prerequisite to 400-level literature courses.
Readings in modern Hispanic literatures, focusing on formal literary analysis.

345. Iberian Civilization. (3:3:0) Prerequisite: Span 202, 302, or equivalent.
Culture, history, art, music, and traditions of Spain.

355. Ibero-American Civilization. (3:3:0) Prerequisite: Span 202, 302, or equivalent.
Culture, history, art, music, and traditions of Spanish America.

365. Mexican-American Culture. (3:3:0) Prerequisite: Span 202, 302, or equivalent.
Contemporary culture (education, popular and fine arts, worldview, attitudes, etc.) of the Mexican-American in the U.S.

Note: Prospective teachers should take Span 377 and 378 just before student teaching and after as many upper-division Spanish courses as possible.
Spanish-teaching majors and minors must take both Span 377 and 378.
Prospective student instructors must take Span 377 before employment, but preference will be given to candidates who have taken both Span 377 and 378.

377. Spanish Language Teaching Procedures 1. (3:3:2) Prerequisite: Span 321, 326; 345 or 355; and, for licensure, ScEd 276.
Mastery of skills specific to foreign language instruction with emphasis on skills taught in first-year courses.

378. Spanish Language Teaching Procedures 2. (3:3:2) Prerequisite: Span 377.
Mastery of skills specific to foreign language instruction; emphasizes skills taught in intermediate courses (reading, writing, testing, and nontraditional methodologies).

395R. Contemporary Culture. (1–3:Arr.:Arr. ea.) For Study Abroad programs only. Prerequisite: Span 102 or equivalent.
Contemporary Spanish (or Spanish- American) culture: the people and their customs and institutions.

399R. Academic Internship: Spanish Language Field Experience. (1–6:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience.

415A. Beginning Translation and Interpretation, English to Spanish. (1.5:3:1) F 1st blk. Prerequisite: Span 321, 322, with a B grade or better.
Introduction to history, theory, and principles of translation and interpretation dealing specifically in English to Spanish.

415B. Beginning Translation and Interpretation, Spanish to English. (1.5:3:1) F 2d blk. Prerequisite: Span 415A.
Introduction to history, theory, and principles of translation and interpretation, dealing specifically in Spanish to English.

416A. Intermediate Translation and Interpretation, English to Spanish. (1.5:3:1) W 1st blk. Prerequisite: Span 415B, with a B grade or better.
Systematic study and contrastive exercises in translation and interpretation from English to Spanish. Translation of texts in general conceptual fields.

416B. Intermediate Translation and Interpretation, Spanish to English. (1.5:3:1) W 2d blk. Prerequisite: Span 416A.
Systematic study and contrastive exercises in translation and interpretation from Spanish to English. Translation of texts in general conceptual fields.

417A. Advanced Translation and Interpretation, English to Spanish. (1.5:3:1) F 1st blk. Prerequisite: Span 416B, with a B grade or better.
Translation of texts in specific fields. Simultaneous interpretation. From English to Spanish.

417B. Advanced Translation and Interpretation, Spanish to English. (1.5:3:1) F 2d blk. Prerequisite: Span 417A.
Translation of texts in specific fields. Simultaneous interpretation. From Spanish to English.

418. Translation and Interpretation Project. (3:3:0) Prerequisite: Span 417A,B.
Individual translation and/or interpretation projects.

421. Fourth-Year Grammar. (3:3:0) F, W Prerequisite: Span 321, 322.
Fourth-year study of Spanish grammar and usage.

423. Border Spanish. (3:3:0) Prerequisite: Span 321 or equivalent.
Mexican-American speech patterns, including language contact and bilingualism. Previous course in linguistics strongly recommended.

425. Contrastive Analysis of the Structures of Spanish and English. (3:3:0) Prerequisite: Span 321.
Contrastive analysis of phonology, morphology, syntax, and semantics of Spanish and English.

429R. Special Topics in Spanish Linguistics. (3:3:0 ea.) Prerequisite: Span 326 or 329.
Course content varies yearly; focuses on specific area of linguistics such as dialectology or sociolinguistics.

438. Hispanic Cinema. (3:3:0) Prerequisite: Span 339 or equivalent.
Introduction to study of film; background in appreciating best of motion picture art in Spain and Spanish America. Previous experience with film useful but not required.

439R. Hispanic Theatre Production. (3:3:0 ea.) Prerequisite: director's consent.
Theory and practice of dramatic performance. Includes participation in play to be performed during semester.

Note: No more than 3 hours of 439R credit may count toward any degree.

440. Medieval Spanish Literature. (3:3:0) Prerequisite: Span 441 or equivalent.
Spanish literature from *El Cantar de Mió Cid* (1140) through *La Celestina* (1499).

441. Survey of Spanish Literature. (3:3:0) Independent Study also. Prerequisite: Span 339.
Literary masterpieces of Spain.

443R. Golden Age Literature. (3:3:0 ea.) Prerequisite: Span 441 or equivalent.
Sixteenth- and seventeenth-century Spanish literature.

444. *Don Quijote.* (3:3:0) Prerequisite: Span 441 or equivalent.
In-depth study of Cervantes' *El ingenioso hidalgo don Quijote de la Mancha.*

446R. Nineteenth-Century Literature. (3:3:0 ea.) Prerequisite: Span 441 or equivalent.
Romanticism (1770s through 1870s) and/or the novels of Benito Pérez Galdós and his contemporaries.

448R. Twentieth-Century Spanish Literature. (3:3:0 ea.) Prerequisite: Span 441 or equivalent.
Genre (twentieth-century novel, drama, or poetry) or particular school (Generation of 1898, Generation of 1927, etc.) emphasized.

449R. Special Topics in Spanish Literature. (3:3:0 ea.) Prerequisite: Span 441 or equivalent.
Specific topics in Spanish (peninsular) literature. Course content will vary each semester to offer optimum exposure to all areas of Spanish literature.

450R. Early Spanish-American Literature. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Indigenous literature (Maya, Nahuatl, etc.) and other texts written in Spanish Colonial America through eighteenth century.

451. Survey of Hispanic-American Literature. (3:3:0) Independent Study also. Prerequisite: Span 339.
Literary masterpieces of Spanish America.

454R. The Spanish American Novel. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Selected Spanish-American novelists such as Juan Rulfo, Gabriel Garciá Márquez, Alejo Carpentier, Mario Vargas-Llosa, etc.

455R. Spanish American Poetry. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Selected Spanish-American poets, movements, and national traditions.

456R. Spanish American Drama. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Twentieth-century theatre from Spanish America and Brazil.

458R. Hispanic-American Short Story. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Introduction and development of an important literary genre in Spanish America, including works of Jorge Luis Borges, Julio Cortázar, Juan Rulfo, Gabriel Garciá Márquez, etc.

459R. Special Topics in Spanish American Literature. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Specific topics in Latin American literature. Course content will vary each semester to offer optimum exposure to all areas of Latin American literature.

461. Spanish-Speaking American (Mexican-American) Literature. (3:3:0) Prerequisite: Span 339 or instructor's consent.
Spanish-English literature of the Mexican-American within the United States.

480R. Directed Research in Spanish. (1–3:Arr.:0 ea.) Prerequisite: written proposal subject to department approval. Independent Study only.
Under faculty member's direction, designing and conducting research project covering material not normally presented in regular course work. Research paper required. Total Span 480R credit toward bachelor's degree not to exceed 3 hours.

490. Senior Seminar in Spanish. (3:3:0) Prerequisite: senior standing.
Bibliography, research, and writing of senior thesis. Recommended for students planning graduate studies in Spanish.

491. Senior Proficiency Evaluation. (0:1:0)
Tool course to meet oral proficiency requirement for all majors and teaching minors. No major or minor credit.

500-Level Graduate Courses (available to advanced undergraduates)

520. Problems in Spanish Grammar. (3:3:0)
Application of contemporary grammatical concepts to problems in Spanish grammar.

521. Romance Philology. (3:3:0)
Comparative study of evolution of Latin into modern romance languages.

522. History of the Spanish Language. (3:3:0)
Linguistic sources that contributed to formation of the Spanish language.

529R. Special Topics in Spanish Linguistics. (3:3:0 ea.) Prerequisite: Span 520, 522.
Topics include semantics, dialectology, and sociolinguistics.

577. Spanish Language Teaching Procedures. (3:3:2) For public school teachers.
Mastery of skills specific to foreign language instruction. Lectures, demonstrations, practical experience.

599R. Academic Internship: Spanish Internship. (1–3:0:0 ea.) For supervised internship credit on BYU Study Abroad programs only. Prerequisite: Span 321 and instructor's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Spanish and Portuguese Faculty

Professors

Alba, Orlando (1993) BA, U. Católica Madre y Maestra, 1972; MA, U. of Puerto Rico, 1978; PhD, U. Nacional de Educación a Distancia, Madrid, Spain, 1988.
Cluff, Russell M. (1983) BA, MA, Brigham Young U., 1972, 1974; PhD, U. of Illinois, 1978.
Dennis, Ronald D. (1966) BA, Brigham Young U., 1964; MA, PhD, U. of Wisconsin, Madison, 1965, 1972.
Larson, Jerry W. (1980) BA, Utah State U., 1969; MA, Brigham Young U., 1974; PhD, U. of Minnesota, Minneapolis, 1977.
Lund, Christopher C. (1992) BA, Brigham Young U., 1967; MA, PhD, U. of Texas, Austin, 1970, 1974.
Lyon, Thomas E. (Ted) (1972) BA, U. of Utah, 1963; PhD, U. of California, Los Angeles, 1967.
Quackenbush, L. Howard (1970) BA, MA, Brigham Young U., 1965, 1967; PhD, U. of Illinois, 1970.
Rosenberg, John R. (1985) BA, MA, Brigham Young U., 1979, 1981; MA, PhD, Cornell U., 1984, 1985.
Sherman, Alvin F., Jr. (1999) BA, MA, Brigham Young U., 1985, 1987; PhD, U. of Virginia, 1990.
Williams, Frederick G. (1999) Gerrit de Jong, Jr., Distinguished Professor of Luso-Brazilian Studies; BA, Brigham Young U., 1965; MA, PhD, U. of Wisconsin, 1967, 1971.
Williams, G. Lynn (2000) BA, PhD, U. of London, England, 1973, 1978.

Associate Professors

Clegg, J. Halvor (1972) BA, Brigham Young U., 1964; MA, PhD, U. of Texas, Austin, 1967, 1969.
Fails, Willis Clark (1981) BA, MA, Brigham Young U., 1975, 1977; PhD, U. of Texas, Austin, 1984.
Hegstrom, Valerie (1994) BA, MA, Brigham Young U., 1982, 1986; MA, PhD, U. of Kansas, 1988, 1992.
Labrum, Marian B. (1974) BA, MA, Brigham Young U., 1972, 1975; PhD, Middlebury Coll., 1988.
Meredith, Robert Alan (1976) BA, MA, Brigham Young U., 1969, 1974; PhD, Ohio State U., 1976.
Pratt, Dale J. (1994) BA, Brigham Young U., 1990; PhD, Cornell U., 1994.
Smead, Robert N. (1998) BA, MA, Brigham Young U., 1981, 1983; PhD, U. of Texas, Austin, 1988.
Turley, Jeffrey (1989) BA, MA, Brigham Young U., 1982, 1984; PhD, U. of California, Berkeley, 1992.
Weatherford, Douglas (1996) BA, Brigham Young U., 1988; PhD, Pennsylvania State U., 1997.

Assistant Professors

García, Mara Lucy (1996) BA, MA, Brigham Young U., 1990, 1992; PhD, U. of Kentucky, 1997.
Laraway, David P. (1998) BA, MA, Brigham Young U., 1992, 1994; PhD, Cornell U., 1998.
Stallings, Gregory C. (1999) BA, MA, Brigham Young U., 1989, 1993; PhD, U. of California, Irvine, 1999.

Associate Lecturer

Hoskisson, Joaquina Valtierra de (1990) BA, MA, Brigham Young U., 1971, 1974.

Assistant Lecturer

Hague, Daryl R. (1994) BA, Brigham Young U., 1987; JD, U. of Washington, 1990.

Emeriti

Anderson, C. Dixon (1956) BA, Brigham Young U., 1953; MA, PhD, U. of Texas, Austin, 1956, 1965.
Ashworth, Peter P. (1966) AA, Bakersfield Coll., 1952; BA, Brigham Young U., 1962; PhD, U. of Oklahoma, 1967.
Brown, Jack V. (1964) BA, MA, Brigham Young U., 1957, 1960.
Compton, Merlin D. (1964) BA, MA, Brigham Young U., 1952, 1954; PhD, U. of California, Los Angeles, 1959.
Dowdle, Harold L. (1968) BA, MA, Brigham Young U., 1948, 1949; PhD, Stanford U., 1954.
Forster, Merlin H. (1987), H. Darrel Taylor Distinguished Professor of Latin American Literature; BA, Brigham Young U., 1956; MA, PhD, U. of Illinois, 1957, 1960.
Hall, Wendell H. (1966) BA, MA, U. of Utah, 1952, 1953; PhD, Inter-American U., Mexico, 1974.
Jackson, T. Wendell (1968) BA, Brigham Young U., 1956; PhD, Ohio State U., 1968.
Jensen, Gordon K. (1969) BA, Brigham Young U., 1963; MA, PhD, U. of Wisconsin, Madison, 1966, 1975.
Meléndez, Gloria S. (1978) BA, U. of Utah, 1955; PhD, Brigham Young U., 1980.

Moon, H. Kay (1963) BA, MA, Brigham Young U., 1957, 1959; PhD, Syracuse U., 1963.
Ramsey, Myriam (1975) Dipl, Pontifícia Universidade Católica do Brasil, Campinas, Brazil, 1954; BA, MAT, Georgia State U., 1971, 1973; PhD, U. of North Carolina, Chapel Hill, 1975.
Rosen, Harold E. (1963) BA, MA, Brigham Young U., 1954, 1959; PhD, U. of Oregon, 1966.
Shreeve, Lyman Sidney (1965) BA, MA, Brigham Young U., 1949, 1951; PhD, Inter-American U., Mexico, 1970.
Taylor, James Scott (1962) BA, MA, Brigham Young U., 1957, 1960; PhD, Ohio State U., 1967.
Valentine, Amy Y. (1970) BA, Brigham Young U., 1946.

Sports

See Physical Education.

Statistics

Howard B. Christensen, Chair
230 TMCB, (801) 422-4505

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

All degree programs in the Department of Statistics are open enrollment.

The Discipline

The statistician's job is to help determine what data are to be collected, how to collect them to avoid biases and distortions, and then how to turn those data into information that other people can understand to help solve problems and reach sound decisions. From the predictions of the political pollster to exacting analyses of pharmaceutical research, the breadth and diversity of statistical applications are injected into nearly all aspects of modern life.

Career Opportunities

The curriculum and degrees offered through the Department of Statistics are designed to equip students with decision-making skills for careers as professional statisticians in industrial organizations, government agencies, insurance companies, pharmaceutical companies, universities, and research institutes. The technical tools statisticians acquire are useful in many areas, and for this reason a statistics degree is also excellent preparation for professional programs in law, business administration, and public administration.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
(Recommended: PhyS 100)
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS Actuarial Science
BS Statistics
Emphases:
Statistical Science
Biostatistics
Business Analysis
Information Systems
Quality Science
BS-MS Integrated Master's Program
Minor Statistics

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Statistics

For more information see the BYU 2003–2004 Graduate Catalog.

General Information

1. It is recommended that a student complete the following courses in high school:

   3 units of English
   1 unit of physical science, either chemistry or physics.
   4 units of mathematics, consisting of 2.5 units of algebra, 1 unit of geometry, and 0.5 unit of trigonometry. This should qualify students to begin college mathematics with Math 112, analytic geometry and calculus.

   Because mathematics provides the foundation for all work in the physical and mathematical sciences, particular attention is paid to high school preparation in this subject.

   To decide which mathematics course should be taken first, write to the Mathematics Department, 292 TMCB, and request a mathematics placement test.
2. Students are encouraged to complete 15 credit hours each semester. Taking fewer credits substantially increases the cost and the number of semesters to graduate.
3. An integrated BS/MS program is available. This program allows students in all undergraduate emphases to receive their bachelor's and master's degree in five years of schooling. It is available only if students begin a major in statistics as freshmen or start early enough in the program to match the pace required to progress through it in a five-year period.

Major Requirements for All Statistics Programs

1. No more than 3 hours of D credit is allowed in major courses.
2. Complete the following preparation core courses:
   CS 142 or CpIn 100.
   Math 112, 113, 214.
3. Complete the following statistics core courses:
   Stat 212, 221, 291, 292, 322, 334*, 336, 337, 431*, 441, 442.

   *Note: Stat 334 and 431 are elective courses for the actuarial science major.
4. Complete one of the majors or emphases listed below.

BS Actuarial Science (62 hours*)

Major Requirements

1. Complete the major requirements listed above.
2. Complete the following:
   Econ 110.
   Stat 474, 475.
3. Complete six courses from the following:
   Acc 200, 210.
   BusM 300, 406.
   Econ 380, 381, 382, 450.
   Stat 334, 412, 431, 435, 462, 466, 469.

*Hours include courses that may fulfill GE or university requirements.

BS Statistics: Statistical Science Emphasis (62 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete seven courses from the following, with at least four courses from the statistics list:
   Math 190, 311, 315, 316, 334, 350, 355, 371, 387, 480.
   Stat 412, 435, 462, 466, 469, 474, 475, 545.

Recommended Courses

The following are strongly recommended if a student plans to pursue a PhD. (See the Mathematics section of this catalog for prerequisites.)
Math 190, 315, 316.

*Hours include courses that may fulfill GE or university requirements.

BS Statistics: Biostatistics Emphasis (61–63 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete a minor offered by the College of Biology and Agriculture.
3. Complete two courses from the following:
   Hlth 478.
   Stat 412, 435, 466, 469.

*Hours include courses that may fulfill GE or university requirements.

BS Statistics: Business Analysis Emphasis (64 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete a minor in management (approximately 17 hours).
3. Complete two courses from the following:
   Stat 412, 462, 466, 469.

*Hours include courses that may fulfill GE or university requirements.

BS Statistics: Information Systems Emphasis (65 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following:
   Acc 200.
   ISys 401, 402, 403, 411, 412, 413.
3. Complete one course from the following:
   Stat 412, 462.

*Hours include courses that may fulfill GE or university requirements.

BS Statistics: Quality Science Emphasis (65 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following:
   Stat 361, 462, 466.
3. Complete a minor in manufacturing.

*Hours include courses that may fulfill GE or university requirements.

Minor Statistics (20 hours*)

Minor Requirements

1. Complete one course from the following:
   CpIn 100.
   CS 142.
2. Complete the following:
   Stat 212, 221, 322, 336.
3. Complete two additional courses numbered 321 or higher (excluding Stat 472).

Note: Stat 510 and 511 can be taken in place of but not in addition to Stat 221 and 336 in item 2.

*Hours include courses that may fulfill GE or university requirements.

Statistics (Stat)

Undergraduate Courses

105. Introduction to Statistics. (3:3:2) F, W, Sp, Su Prerequisite: Math 97 or equivalent.
Fundamental ideas and applications of statistics. Not a GE course.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

212. Statistical Computing 1. (3:2:3) F, W Prerequisite: CS 142 or CpIn 100; Stat 221 or equivalent with instructor's consent.
Statistical programming using the data step in SAS; basic statistical Procs; Proc SQL; ODS; MACROS; introduction to S-Plus.

221. Principles of Statistics. (3:3:2) F, W, Sp, Su Honors and Independent Study also. Prerequisite: Math 110 or equivalent.
Stemplots, boxplots, histograms, scatterplots; central tendency, variability; confidence intervals and hypothesis testing involving one and two means and proportions; contingency tables, regression; computer package.

291, 292. Teaching Elementary Statistics in a Laboratory Setting. (0.5:0:2 ea.) 291: F, W, Sp, Su; 292: F, W, Sp Prerequisite: for 291: Stat 221; for 292: Stat 291.
Supervised training and experience in teaching statistical concepts, managing lab experiences, using learning activities, and evaluating student performance.

301. Statistics and Probability for Secondary Educators. (3:3:2) F, Sp Prerequisite: Math 113.
Statistics and probability, emphasizing secondary-specific curriculum. Principles of counting, probability distributions, density functions, graphical methods, descriptive and inferential statistics, computer package.

321. Elements of Mathematical Statistics. (3:3:2) F, W, Su Independent Study also. Prerequisite: Math 113 or 119 or equivalent.
Probability, random variables, frequency distributions, estimation and tests of hypotheses from a theoretical standpoint.

322. Matrix Computations in Statistics. (2:2:0) F, W, Sp Prerequisite: Math 110.
Basic matrix operations, inverse, quadratic forms, rank; symmetric, idempotent, orthogonal, and positive definite matrices; canonical forms, eigenvalues and eigenvectors.

334. Methods of Survey Sampling. (3:3:2) F, W Prerequisite: Stat 221 or equivalent.
Sampling frames, questionnaire design; simple random, systematic, stratified, and cluster sampling methods, comparing domain means, contingency table analysis.

336. Statistical Methods 1. (3:3:0) F, W Prerequisite: Stat 221; 212, 322, or concurrent enrollment.
Sample estimation and hypothesis testing, nonparametric analogs for t-tests, contingency tables, simple linear regression, multiple regression, subset selection procedures; residual, influence, and collinearity diagnostics.

337. Statistical Methods 2. (3:3:0) F, W Prerequisite: Stat 336.
Completely randomized, randomized block, and Latin square designs; split plots, model writing, fixed model analysis of covariance, nonparametric analogs to classical methods of analysis.

361. Quality Improvement for Industry. (3:3:1) F, W, Sp Prerequisite: Math 112 or 119.
Quality management philosophies (Deming, etc.) Strategies for continuous improvement. Graphical and numerical methods of data analysis. Process control charts. Design and analysis of experiments for process characterization and improvement.

412. Statistical Computing 2. (3:3:2) F Prerequisite: Stat 212.
S Plus, statistical graphics, SAS macros, SAS Proc IML, and simulation.

421. Probability and Distribution Theory. (3:3:0) F, W Prerequisite: Math 113 or equivalent.
Mathematical formulation of continuous and discrete random variables, including underlying probability models, distribution functions, conditional and marginal probability laws, convolutions and other functions of random variables, limiting distributions.

431. Experimental Design. (3:3:0) F, W Prerequisite: Stat 337 or 511.
Basic designs, power and sample size, Latin squares, incomplete blocks, change-over designs, factorials, fractional factorials, confounding, split-plots, response surface designs.

435. Analysis of Categorical and Other Nonparametric Data. (3:3:0) F Prerequisite: Stat 336 or equivalent.
Nonparametric analogs of classical parametric methods, 2x2 log linear models, contingency tables, the Mantel-Haenszel test, stratified analysis, conditional independence, collapsibility and life tables.

441. Statistical Theory 1. (3:3:0) F, W Prerequisite: Math 214.
Axiomatic probability theory for discrete and continuous random variables; moment-generating functions; conditional probability; stochastic independence; transformations; limiting distributions; stochastic convergence; central limit theorem.

442. Statistical Theory 2. (3:3:0) F, W Prerequisite: Stat 441.
Sufficiency and completeness; point and interval estimation; hypothesis testing; Cramer-Rao inequality; some asymptotic results; Bayesian methods.

462. Quality Control and Industrial Statistics. (3:3:2) W Prerequisite: Stat 336 or 361; 321 or 441. Recommended: Stat 337.
Intermediate concepts in process analysis, process control, and control chart procedures; Pareto diagrams, cause-effect diagrams; acceptance sampling.

466. Introduction to Reliability. (3:3:2) W Prerequisite: Stat 336 or 361; 321 or 441.
Mathematics, distributions, management, and maintenance of basic reliability concepts; collection and analysis of test data; fault tree analysis; applying reliability in various areas.

469. Applied Time Series and Forecasting. (3:3:0) W Prerequisite: Stat 336.
Univariate time series, univariate Box-Jenkins methodology, ARIMA models, nonstationary models, model building, forecasting, seasonal analysis, case studies.

472. Actuarial Problems. (1:2:0) W, Sp Prerequisite: Stat 441, 442, or concurrent enrollment.
Applying mathematical statistics in actuarial science. Prepares for the course 1 exam.

474. Life Contingencies 1. (3:3:0) F Prerequisite: Math 214; Stat 441 or concurrent enrollment.
Theory of interest, annuities, amortization, life tables, life annuities. Prepares for the course 2 exam.

475. Life Contingencies 2. (3:3:0) W Prerequisite: Stat 474.
Contingent annuities, joint annuities, insurance, calculating premiums and reserves. Prepares for the course 3 exam.

496R. Academic Internship: Statistics. (0.5–9:Arr:Arr ea.) F, W, Sp, Su Prerequisite: department coordinator's consent.
On-the-job experience or internships for undergraduates. Report is required.

497R. Introduction to Statistical Research. (0.5–3:0:6 ea.) F, W, Sp, Su Prerequisite: department chair's consent.
Review of current literature and survey of present status of significant statistical research; collaborative work between student and faculty.

499R. Honors Thesis. (0.5–6:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: departmental consent.

500-Level Graduate Courses (available to advanced undergraduates)

510. Introduction to Statistics for Graduate Students. (3:3:1) F, W, Sp, Su Prerequisite: Math 97 or equivalent. Recommended: Math 110 or equivalent.
Introductory statistics course for graduate students outside Statistics Department. Topics include probability, estimation, hypothesis tests, simple linear regression, analysis of variance.

511. Statistical Methods for Research 1. (3:3:2) F, W, Sp Prerequisite: Stat 510 or equivalent.
Basic statistical methodologies and experimental design. Topics include analysis of variance, multiple regression, analysis of covariance, common experimental designs.

512. Statistical Methods for Research 2. (3:3:2) W, Su Prerequisite: Stat 511.
Advanced statistical methodologies. Topics include repeated measures models, basic multivariate techniques, logistic regression, log-linear models.

522. Theory of Linear Models. (3:3:0) W Prerequisite: Stat 322, 442, or equivalents.
Linear hypotheses, with application to regression and design.

525. Statistical Inference. (3:3:0) F Prerequisite: Stat 322, 442, or equivalents.
Exponential families, likelihood theory, maximum likelihood estimation, likelihood ratio tests, small and large sample tests.

532. Quality Improvement for Engineering. (3:3:2) F Prerequisite: Stat 361, Math 113.
Selected topics in statistical theory, analysis of variance, simple and multiple regression, response surface design and analysis, multilevel experimental designs, blocking designs, confounding.

534. Sampling. (3:3:2) F even yr. Prerequisite: Stat 334; 441 or departmental consent.
Estimation in systematic, simple random, stratified, cluster, and PPS sampling and mixtures of these; ratio estimation, sample size determination and principles of sample allocation.

535. Applied Linear Models. (3:3:0) F Prerequisite: Stat 337; Stat 441 or concurrent enrollment; or departmental consent.
Analysis of full-rank model, over-parameterized model, cell-means model, unequal subclass frequencies, and missing and fused cells. Estimability issues, diagnostics.

536. Modern Regression Methods. (3:3:0) W even yr. Prerequisite: Stat 322; 336 or 511.
Weighted least squares, measurement error models, robust regression, nonlinear regression, local regression, generalized additive models, tree-structured regression.

537. Generalized Linear Models. (3:3:0) F Prerequisite: Stat 522, 535.
Generalized linear models framework, binary data, polytomous data, log-linear models.

545. (Stat-ECEn 510) Stochastic Processes. (3:3:0) Sp Prerequisite: Stat 441 or equivalent.
Review of elementary probability: expectation, characteristic functions, limit theorems. Introductory random processes: definitions and properties, covariance and spectral density, time average, stationarity, ergodicity, linear system relations, mean square estimation, Markov processes.

590. Statistical Consulting. (3:3:0) W Prerequisite: departmental consent.
Introduction to statistical consulting, oral presentations, presentation packages, written reports. Extensive applied experience in the Center for Collaborative Research and Statistical Consulting.

591R. Graduate Seminar in Statistics. (0:1:0 ea.) F, W

595R. Special Topics in Statistics. (1–3:Arr.:0 ea.) On dem. Prerequisite: instructor's consent.

599R. Academic Internship: Statistics. (1–9:0:Arr. ea.) F, W, Sp, Su Prerequisite: departmental consent.
On-the-job experience. Report required.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Statistics Faculty

Professors

Bryce, Gale Rex (1972) AA, Phoenix Coll., 1963; BS, Arizona State U., 1967; MS, Brigham Young U., 1970; PhD, U. of Kentucky, 1974.

Christensen, Howard B. (1967) BS, Brigham Young U., 1964; MS, PhD, North Carolina State U., 1966, 1975.

Collings, Bruce J. (1988) BS, MS, MS, Brigham Young U., 1973, 1975, 1977; MS, PhD, U. of North Carolina, 1980, 1981; ASA, Society of Actuaries, 1994.

Fellingham, Gilbert W. (1990) BA, Occidental Coll., 1971; MS, MS, Brigham Young U., 1976, 1977; MS, PhD, U. of Washington, 1988, 1990.

Schaalje, G. Bruce (1992) BS, MS, Brigham Young U., 1977, 1979; MS, U. of Washington, 1981; PhD, North Carolina State U., 1988.

Scott, Del T. (1977) BS, MS, Brigham Young U., 1970, 1973; PhD, Pennsylvania State U., 1977.

Tolley, H. Dennis (1983) BS, Brigham Young U., 1970; PhD, U. of North Carolina, 1974; ASA, Society of Actuaries, 1981.

Associate Professors

Grimshaw, Scott D. (1993) BS, Southern Utah State Coll., 1983; MS, PhD, Texas A&M U., 1985, 1989.

Hilton, Sterling C. (1996) BA, MA, MS, Brigham Young U., 1987, 1990; PhD, Johns Hopkins U., 1996.

Lawson, John S. (1986) AA, Los Angeles Valley Coll., 1967; BS, MS, Brigham Young U., 1969, 1971; MS, Rutgers U., 1976; PhD, Polytechnic Inst. of New York, 1983.

Associate Teaching Professor

Larsen, Wayne A. (1998) BS, Brigham Young U., 1961; PhD, Virginia Polytechnic Inst. and State U., 1967.

Assistant Professors

Collings, Patti Burton (1988) BS, MS, Brigham Young U., 1971, 1977.

Whiting, David G. (1995) BA, MS, Brigham Young U., 1988, 1990; PhD, Texas A&M U., 1995.

Wolfson, Lara J. (1999) BS, Simon Fraser U., Canada, 1991; MS, PhD, Carnegie-Mellon U., 1993, 1995.

Assistant Teaching Professors

Nielsen, P. Lynne (2000) BS, U. of Philippines, 1973; MS, Brigham Young U., 1984.

Snow, Gregory L. (2000) BS, MS, Brigham Young U., 1992, 1994; MS, PhD, U. of Washington, 1997, 2000.

Associate Research Professor

Eggett, Dennis L. (1997) BS, MS, Brigham Young U., 1981, 1983; PhD, North Carolina State U., 1987.

Adjunct Professor

Booth, Gordon D. (1981) BA, BS, Brigham Young U., 1960, 1963; MS, PhD, Iowa State U., 1967, 1973.

Emeriti

Adams, L. LaMar (1970) BS, MEd, PhD, Brigham Young U., 1961, 1965, 1972.

Beus, Gary B. (1967) BA, Brigham Young U., 1962; MS, PhD, Virginia Polytechnic Inst., 1965, 1968.

Campbell, L. Howard (1962) BS, MBA, U. of Utah, 1955, 1957.

Carter, Melvin W. (1961) BS, Arizona State Coll., 1953; MS, PhD, North Carolina State U., 1954, 1956.

Hendrix, Leland J. (1967) BS, MA, PhD, Brigham Young U., 1960, 1966, 1967.

Hilton, H. Gill (1962) BS, Brigham Young U., 1957; MS,PhD, North Carolina State U., 1960, 1962.

Nielson, Howard C. (1957) BS, U. of Utah, 1947; MS, U. of Oregon, 1949; MBA, PhD, Stanford U., 1956, 1957.

Rencher, Alvin C. (1963) BS, MA, Brigham Young U., 1959, 1962; PhD, Virginia Polytechnic Inst., 1968.

Richards, Dale O. (1963) BS, Utah State U., 1950; MS, PhD, Iowa State U. of Science and Technology, 1957, 1963.

Student Development

Ronald K. Chapman, Chair
2514 WSC, (801) 422-4007

University Advisement Center
2500 WSC, (801) 422-3826

The Discipline

The Student Development Department provides course work designed to help students in the areas of intellectual/learning, career, and personal/social development.

The Career and Learning Information Center, 2590 WSC, contains detailed, current information about numerous occupations, college majors, educational programs, professional licensing requirements for various states, placement information about recent BYU graduates, and career skills information, such as job interviewing.

Student Development (StDev)

Undergraduate Courses

100. Essential College Skills. (1:1:0) F, W, Sp, Su Independent Study also.

Developing essential college skills. Aims of BYU, values and goals, sound thinking skills. Learning styles and adjustment to college courses. College requirements and planning.

110. Effective Study and Learning. (2:2:0) F, W, Sp Su Independent Study also.

Learning to learn: motivation, time management, reading, listening, notetaking, test preparation, and memorizing; cognitive and ethical development in a learning environment.

115. Life Planning and Decision Making. (2:2:0) F, W, Sp, Su Independent Study also.

Individual development in life planning and decision making, emphasizing personal maturity, goal setting, and decision making abilities in areas of common concern to young adults.

117. Career Exploration. (2:2:0) F, W, Sp, Su Independent Study also.

Applying theories of individual, academic, and career development to the university student. Exploring university opportunities and college majors; graduation planning.

120. Individual Development. (2:2:0) F, W

Applying theories of young adult development in a self-assessment approach to achieving individual development in the life challenges facing college students.

132. Introduction to Tutoring. (1:1:0) F, W

Developing college-level tutoring skills; academic success and the tutoring cycle. Leads to level-one tutoring certification of the College Reading and Learning Association.

133. Advanced Tutoring. (1:1:0) F, W Prerequisite: StDev 132.

Developing advanced-level tutoring approaches and analytical thinking. Leads to level-two tutoring certification of the College Reading and Learning Association.

158R. Leadership in a Learning Community. (1–2:Arr.:0 ea.) F, W

Community development and learning principles.

198R. Prelaw Seminar. (1:1:0 ea.) F, W

Choices in majors and prelegal education; the work of lawyers, judges, and others in legal careers; role of law in our communities.

199R. Academic Internship. (1–3:0:0 ea.) F, W, Sp, Su Prerequisite: department internship coordinator's consent.

Work experience evaluated by supervisor and faculty mentor and posted on transcript.

214R. Special Topics in Student Development. (1–3:1:0 ea.) On dem.

317. Managing Career Transitions. (1–2:Arr.:0) F, W
Anticipating, preparing for, and managing critical transition from university to world of work. Theoretical conceptualizations of career development and practical strategies to facilitate job search/advancement process.

358R. Student Leadership Development. (1–3:2:2 ea.) F, W
Prerequisite: instructor's consent.
Analysis, synthesis, and integration of personal leadership experienced in an academic context. Successful leadership: decision making, communications, planning, team building, motivation, and interpersonal skills.

490. Bachelor of General Studies Capstone. (1:1:0) On dem.
Prerequisite: StDev 100; completion of BGS program.
Culminating course required for bachelor of general studies degree: analyze and evaluate "Aims of a BYU Education" in light of student experience in BGS program; synthesize degree experience and write reflective paper.

Student Development Faculty

Professors
Heaps, Richard A. (1970) BS, Brigham Young U., 1966; MA, PhD, U. of Utah, 1968, 1970.
Ward, G. Robert (1981) BS, MS, Utah State U., 1959, 1961; PhD, Michigan State U., 1965.

Clinical Professors
Bell, Douglas J. (1972) BS, Brigham Young U., 1970; MBA, U. of Utah, 1971; PhD, Brigham Young U., 1984.
Chapman, Ronald K. (1997) BS, PhD, Brigham Young U., 1975, 1983.
Gleave, Robert L. (1989) BS, MEd, PhD, Brigham Young U., 1975, 1976, 1981.
Isakson, Richard L. (1983) BA, Weber State U., 1970; MS, Bucknell U., 1971; PhD, Cornell U., 1975.
MacArthur, James D. (1973) BA, MA, PhD, Brigham Young U., 1969, 1973, 1976.
Maughan, Michael L. (1972) BS, MS, EdD, Utah State U., 1966, 1968, 1970.
Nielsen, Stevan L. (1988) BS, Brigham Young U., 1976; PhD, U. of Washington, 1984.
Shively, Ann Pye (1991) BMEd, Sam Houston State U., 1958; MEd, PhD, Texas A & M U., 1966, 1971.
Smart, David (1992) BA, Brigham Young U., 1964; MA, PhD, U. of Utah, 1967, 1969.

Associate Clinical Professors
Bennion, Lynne A. (1993) BS, Brigham Young U., 1981; MS, PhD, Purdue U., 1983, 1986.
Buxton, Michael S. (1999) BS, Brigham Young U., 1985; MS, PhD, U. of Georgia, 1989, 1993.
Esplin, Patricia B. (1993) BS, Brigham Young U., 1966; MS, PhD, U. of Utah, 1976.
Lawson, Jane M. (1997) BA, Webster U., 1962; PhD, U. of Minnesota, 1980.
Roberts, Norman L. (2001) BA, Brigham Young U., 1973; MS, U. of Utah, 1981; PhD, Brigham Young U., 1994.
Scharman, Janet S. (1992) BA, MS, PhD, U. of Utah, 1970, 1990, 1992.
Smith, Steven A. (1992) BS, MEd, Brigham Young U., 1981; PhD, U. of Minnesota, 1988.
Williams, Marleen S. (1993) BS, PhD, Brigham Young U., 1987, 1993.
Worthen, Vaughn E. (1991) AA, Ricks College, 1980; BS, MEd, Brigham Young U., 1983, 1985; PhD, U. of Kansas, 1993.

Assistant Clinical Professors
Beecher, Mark E. (2002) BS, Brigham Young U., 1993; MSW, U. of Utah, 1995; PhD, Brigham Young U., 1998.
Dougher, Kirk M. (1999) BA, Utah State U., 1990; PhD, U. of Nevada, Reno, 1999.
Moody, Richard A. (1997) BS, Brigham Young U., 1984; MS, Kansas State U., 1991; PsyD, Central Michigan U., 1996.
Morrell, Barbara (1997) BS, MEd, PhD, Brigham Young U., 1982, 1985, 1997.
Nielsen, Dianne L. (2001) BS, PhD, Brigham Young U., 1977, 2001.
Okiishi, John C. (2000) BS, PhD, Brigham Young U., 1995, 2000.
Pedersen, Tyler R. (2001) BS, Brigham Young U., 1994; MS, PhD, U. of Florida, 1998, 2000.
Preece, Julie E. (1999) BS, MEd, PhD, Brigham Young U., 1985, 1988, 1994.
Rice, L. Maureen (1998) BS, MA, PhD, Brigham Young U., 1977, 1980, 1997.

Emeriti
Bekker, Demoyne (1990) BA, MA, Brigham Young U., 1961, 1962; PhD, Ohio State U., 1968.
Herlin, Wayne R. (1964) BA, U. of Utah, 1953; MA, Stanford U., 1956; PhD, U. of Utah, 1963.
Sorenson, David M. (1969) BA, Brigham Young U., 1961; EdM, EdD, Harvard U., 1962, 1970.

Study Abroad

See International and Area Studies.

Swedish

See Center for Language Studies.

Teacher Education

M. Winston Egan, Chair
205 MCKB

David O. McKay School of Education Advisement and Certification Office
120 MCKB, (801) 422-3426

Admission to Degree Program

The degree programs in this department carry special enrollment limitations. Please see the college advisement center for specific details.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements, (2) university requirements, and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed for one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS	Early Childhood Education
BS	Elementary Education
	Emphasis (optional):
	Early Childhood Education
BS	Physical Science (composite teaching major)
BS	Social Science (composite teaching major)

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Teaching and Learning
MEd	Teaching and Learning
EdD	Reading

For more information see the BYU 2003–2004 Graduate Catalog

Additional Endorsements/Licensures

Elementary Education with TESOL or Early Childhood Education with TESOL

See the Education Advisement and Certification Office for further information.

Elementary Music Education–Elementary Education Dual Licensure

See the College of Fine Arts and Communications Advisement Center (D-444 HFAC) for music programs and course listings and the Education Advisement and Certification Office for the education program.

Early Childhood Education

Admission to Degree Program

Students are accepted into the early childhood education teacher preparation program by application only. The application review process includes the following:

1. Completion of the ECE exploratory experience. The instruction packet is available in the Education Advisement and Certification Office, 120 MCKB, or the Early Childhood Office, M128, B-77.
2. Successful completion of the following core and preprofessional courses: MFHD 210, 321/322, 340.
3. Be fingerprinted. Check with Education Advisement and Certification Office (120 MCKB) for instructions.
4. A university cumulative GPA of 2.85 or higher.

To conform to the requirements for professional accreditation and licensure, the early childhood education degree program must limit enrollment. Therefore, not everyone who applies will be automatically accepted. Check with the Education Advisement and Certification Office, 120 MCKB, for application due dates.

The Discipline

Early childhood education prepares teachers who, having gained their own liberal education, help preschool, kindergarten, and primary-grade-school-age children learn by improving the teaching children receive in the home, school, church, and community. Early childhood education provides a preparation program wherein students enhance their thinking abilities, build their confidence in exploring new ideas, and become self-motivated, independent learners.

The program provides the opportunity for prospective teachers to learn about the culture of young children, develop a solid foundation in basic principles of teaching and learning that originate in developmental theory and research, and become

proficient in appropriate practices to implement those basic principles in practical settings.

Career Opportunities

A degree in early childhood education leads to licensure in kindergarten through grade three. The kindergarten endorsement can only be obtained as part of the Early Childhood License. Students in this major are licensed to teach kindergarten through primary grades in the public schools. See the advisement center for details.

BS Early Childhood Education (62 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this program.

Major Requirements

1. No credit lower than C– is allowed in major or supporting courses.
2. Complete the following :
   MFHD 210, 332, 340, 351, 355.
   And complete one course from the following:
   MFHD 250, 331, 352.
3. Complete the following preprofessional courses prior to application for admission:
   MFHD 321, 322.
4. Complete the following professional courses (prior acceptance to the major required):
   CPSE 400.
   ECE 323.
   ElEd 340.
   IP&T 286.
   Music 378.

   And complete one course from the following:
   Dance 326.
   TMA 352.
   VAEdu 326.
5. Complete the following professional sequence cohort and student teaching courses:
   ECE 324, 326, 327, 425, 426.
   ElEd 356, 361, 363.
   RelC 491, 492.
   And complete one course from the following:
   ECE 423, 424.

Recommended Courses

Engl 313.
HEPE 129.
MFHD 420.
MthEd 305, 306.

*Hours include courses that may fulfill GE or university requirements.

Early Childhood Education (ECE)

Undergraduate Courses

320. Teaching the Creative Arts: Birth Through Kindergarten. (3:3:0) F Prerequisite: admittance to ECE major.

Implementing integrated learning experiences in dance, music, drama, and visual art for the very young, including importance of home, family, and environments on child's aesthetic growth.

321. Teaching the Creative Arts: Grades One Through Three. (3:3:0) W Prerequisite: admittance to ECE major.

Implementing integrated learning experiences in dance, music, drama, and visual art in primary grades, focusing on natural creative expression and nurturing creative impulses in classroom.

323. Integrated Curriculum in Programs for Young Children. (2:2:0) Prerequisite: MFHD 321, 322; admittance to either ECE or ElEd licensing programs.

Methods in planning and implementing an integrated curriculum using projects and thematic units developmentally appropriate for children's learning.

324. Integrated Curriculum Practicum. (2:0:2) Prerequisite: admittance to ECE cohort.

Practical classroom experience in planning and implementing developmentally appropriate learning activities, via themes and projects, that effectively integrate learning across curriculum subject areas.

326. Teaching Social Studies for Cultural Understanding. (2:2:0) Prerequisite: admittance to ECE cohort.

Developing and implementing meaningful integrated learning experiences in the social studies area, taking into account children's home experience and cultural values.

327. Assessment and Action Research in Early Childhood Programs. (2:2:0) Prerequisite: admittance to ECE cohort.

Formal and informal assessment strategies and data collection procedures for evaluating children's progress; programs to enhance learning, individualize instruction, and communicate with others.

423. Preschool Student Teaching/Internship (6:0:6) F, W, Sp Prerequisite: all ECE core and professional sequence courses; concurrent enrollment in ECE 426; prior application.

Student teaching/interning experience in the preschool. Fee.

424. Kindergarten Student Teaching/Internship. (6:0:6) F, W, Sp Prerequisite: all ECE core and professional sequence courses; concurrent enrollment in ECE 426; prior application.

Student teaching/interning experience in the kindergarten. Fee.

425. Grades 1–3 Student Teaching/Internship. (6:0:6) F, W, Sp Prerequisite: all ECE core and professional sequence courses; concurrent enrollment in ECE 426; prior application.

Student teaching/interning experience in the primary grades. Fee.

426. Capstone Seminar. (2:2:0) Prerequisite: concurrent enrollment with student teaching practicum.

Gaining insight into significant issues in early childhood education, developing a sense of professional ethics, and becoming personally committed to ongoing professional development.

Elementary Education

Admission to Degree Program

Students are accepted into the elementary education teacher preparation program by application only. Students must attend an application meeting held by the Education Advisement and Certification Office prior to making application for admission.

The application review process includes but is not limited to the following:

1. Significant experience working with elementary-age children or the Exploratory Experience in Education (EEE), a 25-hour independent field experience.
2. A university cumulative GPA of 2.85 or higher.
3. Be fingerprinted. See Education Advisement and Certification Office (120 MCKB) for instructions.
4. If admitted, deferment from the four-semester professional sequence is only permitted by deparmental approval.

The degree programs in elementary education carry enrollment limitations. A maximum of two applications will be considered for any individual.

The Discipline

Elementary education prepares teachers who, having gained their own liberal education, help elementary-school-age children learn by improving the teaching children receive in the home, school, church, and community. Elementary education provides a preparation program wherein students enhance their thinking abilities, build their confidence in exploring new ideas, and become self-motivated, independent learners.

The program provides the opportunity for prospective teachers to learn about the culture of the elementary school, develop a solid foundation in basic principles of teaching and learning that originate in educational theory and research, and become proficient in systematically applying those basic principles in practical settings.

Career Opportunities

A degree in elementary education leads to opportunities for teaching in elementary schools. By taking additional classes in early childhood education, secondary education, music, or teaching English to speakers of other languages (TESOL) students can extend their teaching credential to teach kindergarten, seventh and eighth grade, elementary music, or TESOL.

BS Elementary Education (65.5–69.5 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this program.

Major Requirements

1. Make formal application for admission to the program through the Teacher Education Department (201 MCKB).
2. Students who receive a grade lower than C– in any of the professional or support courses will be discontinued from the elementary education program.
3. Complete all GE courses, including the following, prior to beginning program:
   MFHD 210.
   PE 169.
   PhyS 110A,B.
   And complete 2 hours of the following:
   IP&T 286.
4. Complete an application seminar (seminar schedule posted on Education Advisement and Certification Office Web page, on the hotline at [801] 422-3426, and in 120 MCKB).
5. Complete the following preprofessional courses after admission to the program:
   Dance 326.
   MthEd 305.
   Music 378.
   PE 375.
   TMA 352.
   VAEdu 326.
6. Complete the following professional courses (prior application and admission to program required):
   CPSE 400.
   EdLF 452.
   ElEd 302, 340, 351, 354, 355, 356, 357, 361, 363, 365, 372.
   Hlth 361.
   IP&T 301.
   MthEd 306.
   RelC 491, 492.
7. Complete 8 or 12 hours of one of the following (prior application required):
   ElEd 400R, 496R.

Recommended Courses

The following courses are strongly recommended. All can fill GE requirements:

Biol 100 (InBio 101 lab also strongly recommended).
Engl 313.
Geog 120, 230.
InBio 134.

*Hours include courses that may fulfill GE or university requirements.

BS Elementary Education: Early Childhood Education Emphasis (90.5–94.5 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this program.

Major Requirements

1. Make formal application for admission to the program through the Teacher Education Department (201 MCKB).
2. Students who receive a grade lower than C– in any of the professional or support courses will be discontinued from the elementary education/early childhood program.
3. Complete all GE courses, including the following, prior to beginning program:
   MFHD 210, 321, 322, 340.
   PE 169.
   PhyS 100A,B.
   And complete 2 hours of the following:
   IP&T 286.
4. Complete an application seminar (seminar schedule posted on Education Advisement and Certification Office Web page, on the hotline at [801] 422-3426, and in 120 MCKB).
5. Complete the following courses:
   ECE 323.
   MFHD 332, 355.
6. Complete one course from the following:
   MFHD 250, 331, 351, 352.
7. Complete the following preprofessional courses after admission to the program:
   Dance 326.
   MthEd 305.
   Music 378.
   PE 375.
   TMA 352.
   VAEdu 326.
8. Complete the following professional courses (prior application required):
   CPSE 400.
   EdLF 452.
   ElEd 302, 340, 351, 354, 355, 356, 357, 361, 363, 365, 372.
   Hlth 361.
   IP&T 301.
   MthEd 306.
   RelC 491, 492.
9. Complete 8 or 12 hours from one of the following:
   ElEd 400R, 496R.
10. Complete one course from the following:
    ECE 423, 424.

11. Complete the following concurrently with ECE 423 or 424 above:
    ECE 426.

Recommended Courses

The following courses are strongly recommended. All can fill GE requirements:

Biol 100 (InBio 101 lab also strongly recommended).
Engl 313.
Geog 120, 230.
InBio 134.

*Hours include courses that may fulfill GE or university requirements.

Elementary Education (ElEd)

Undergraduate Courses

302. Planning and Management. (2:2:0) F, W Prerequisite: admittance to elementary education program.

Learning principles, lesson planning, classroom atmosphere, classroom management, professional attitudes and practices.

310R. Introduction to Learning and Teaching. (1–6:Arr.:Arr. ea.) On dem. By application only. See Education Advisement and Certification Office or department office for application dates. Prerequisite: Engl 115 or Phil 105, Precollege Mathematics, MFHD 210, PPST, speech and hearing test, and minimum of 45 credit hours completed.

Course consists of two major components: (1) teaching for learning, and (2)cognitive understanding of effective teaching and learning. Demonstrated competence in both components is required for admittance to the professional program. Fee.

340. Children's Literature. (2:2:0) F, W, Sp Independent Study also. Prerequisite: some sections require acceptance to professional program.

Trends and titles in children's and adolescent literature. Reading and critiquing as well as practical uses of children's literature in both school and home.

351. Multicultural Education. (2:2:0) F, W, Sp Prerequisite: major status.

Cultural issues related to public education that promote constructive interaction among people of differing economic, social, racial, ethnic, and religious backgrounds.

354. Assessing and Supporting Literacy Development: Practicum 1. (1:0:2) F, W Prerequisite: major status; concurrent enrollment in ElEd 356.

Applying reading and writing assessment and instructional strategies in the primary grades.

355. Assessing and Supporting Literacy Development: Practicum 2. (1:0:2) F, W Prerequisite: major status; concurrent enrollment in ElEd 357.

Applying reading and writing assessment and instructional strategies in grades three to six.

356. Teaching Reading and Language Arts in the Primary Grades. (2:2:0) F, W Prerequisite: major status; concurrent enrollment in ElEd 354.

Issues, theories, and practices of literacy instruction for primary grades, including development of literacy through listening, speaking, reading, and writing.

357. Teaching Reading and Language Arts in the Intermediate Grades. (2:2:0) F, W Prerequisite: major status; concurrent enrollment in ElEd 355.

Issues and practices for teaching language arts in grades three to six, including content area reading and writing, literature, comprehending and responding, vocabulary development, and structural analysis applications.

361. Teaching Mathematics in the Elementary School. (2:2:0) F, W Prerequisite: major status; MthEd 305, 306 or demonstrated competency on test of content.

Methods and materials for teaching elementary school mathematics guided by current principles of curriculum, instruction, and assessment in mathematics education.

362. Practicum in Teaching Mathematics. (1:0:2) F, W Prerequisite: major status; MthEd 305, 306 or demonstrated competency on test of content; concurrent enrollment in ElEd 361.

Applying content and methods learned in ElEd 361 in an elementary school classroom. Fee.

363. Teaching Science in the Elementary School. (2:2:0) F, W Prerequisite: major status; departmental approval.

Designed to help prospective teachers develop knowledge, skills, and attitudes related to teaching science in the elementary school.

364. Practicum in Teaching Science. (0.5:0:1) F, W Prerequisite: departmental approval; concurrent enrollment in ElEd 363.

Field experience designed to give students opportunities to interact with elementary school students and apply skills and knowledge developed in ElEd 363.

365. Teaching Social Studies in the Elementary School. (2:2:0) F, W Prerequisite: major status.

Developing instructional methods and curriculum design to initiate and maintain effective learning in social studies classrooms.

366. Social Studies Practicum. (0.5:0:1) F, W Prerequisite: concurrent enrollment in ElEd 365.

Practicing strategies in instruction and curriculum to initiate and maintain effective learning in social studies classrooms.

372. Instruction and Assessment. (2:2:0) F, W Prerequisite: admittance to elementary education program.

Taken during second professional semester. Extended planning, integrated units, teaching strategies, management problems, and assessment and reporting of student progress.

400R. Elementary Student-Teaching Internship. (1–12:Arr.:Arr. ea.) F, W Prerequisite: three-semester professional sequence and prior application. See Education Advisement and Certification Office for application dates.

Semester-long or two-consecutive-term, full-day student-teaching internship in the public schools. Seminar attendance required. Fee.

450. Foundations for Bilingual/ESL Education. (2:2:0) F, W Prerequisite: formal admittance to elementary education program.

Identifying and assessing legal, linguistic, cultural, community, and familial issues affecting access of Limited English Proficient (LEP) student populations to education.

477R. Practicum in Bilingual/ESL Education. (0.5–4:0:Arr. ea.) F, W Prerequisite: concurrent enrollment in ScEd-ElEd 450, Ling 440, 460, 471, 472, FamLf 305.

Practicum in teaching students with limited English proficiency.

493R. Independent Readings or Project. (1–4:0:3 ea.) F, W, Sp, Su Prerequisite: departmental approval.

496R. Academic Internship. (8–12:Arr.:Arr. ea.) F Prerequisite: three-semester professional sequence and prior application. See Education Advisement and Certification Office for application dates.

A full-year classroom teaching internship in the public schools in lieu of ElEd 400, student teaching.

500-Level Graduate Courses (available to advanced undergraduates)

514R. Special Topics in Education. (1–3:Arr.:Arr. ea.) On dem. These courses do not count toward a graduate degree.
- —Children's Literature
- —Classroom Management
- —Comprehensive Literacy
- —Computers in Education
- —Curriculum
- —Environmental Education
- —Foundations of Reading
- —Increasing Teaching Effectiveness
- —Individualized Instruction
- —Language Arts
- —Language Development and Reading
- —Mathematics
- —Organizing for Instruction
- —Precision Teaching
- —Reading
- —Reading in the Content Areas
- —Science
- —Social Studies
- —Writing in Elementary Education

515R. Special Topics in Education. (1–3:Arr.:0 ea.) On dem. These courses do not count toward a graduate degree without prior approval.
- —Art in Education
- —Children's Literature
- —Classroom Management
- —Curriculum Innovations
- —Dance Drama in Education
- —Early Childhood Education
- —Effective Teaching
- —Evaluating Student Learning
- —Foundations
- —Health Education
- —Home-School Relations
- —Human Development
- —Investigating Home Schooling
- —Language Arts
- —Mathematics
- —Microcomputers in Schools
- —Multicultural Education
- —Music in Education
- —PE in Education
- —Precision Teaching
- —Program Evaluation
- —Reading
- —Reading in the Content Areas
- —Science
- —Social Science
- —Writing in the Elementary School

530. Principles of Learning. (3:3:0) Su
Improving classroom learning through understanding underlying psychological principles and theories.

533. Written Expression in the Elementary Schools. (2:2:0) On dem.
Foundation, objectives, and strategies for teaching the writing process to elementary students, including spelling, handwriting, and integration with listening and speaking skills.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Secondary Education

The Discipline

The Department of Teacher Education provides a program that licenses secondary teachers for the public schools. In addition to content courses in the field(s) in which they plan to teach, students complete professional education courses and practicum experiences that prepare them to teach in a secondary school setting.

Career Opportunities

Secondary education teacher.

General Information

Teaching Majors, Minors and Composites

Students wishing to certify as secondary teachers select one of the following options in addition to the professional education sequence.

Option 1a: Teaching Major
The following subjects *do not require* a teaching minor, although a teaching minor is recommended.

- Chemistry Education (79.5–82.5 hours)
- Dance Education (69–71 hours)
- English Teaching (71–72 hours)
- History Teaching (61–62 hours)
- Mathematics Education (70–71 hours)
- Physical Education: Public School Teaching (K–12) (81.5–8535 hours)
- Physics Teaching (73.5–75.5 hours)
- Theatre Arts Education (74–75 hours)

Option 1b: Teaching Major and Approved Teaching Minor
The following subjects *require* an approved teaching minor.

- French Teaching (92–98 hours)
- Geography Teaching (86–94 hours)
- German Teaching (99–105 hours)
- Spanish Teaching (80–103 hours)

Approved Teaching Minors for Options 1a and 1b Teaching Majors:
- Art Education (21 hours)
- Chemistry Education(16–18 hours)
- Chinese Teaching (26–42 hours)
- Coaching and Teaching Physical Education (23.5–27.5 hours)
- Computer Science Teaching (20 hours)
- Driver Safety Education (16 hours)(see Department of Health Science)
- English Teaching (27 hours)
- French Teaching (24–39 hours)
- Geography Teaching (18 hours)
- Geology Teaching (16 hours)
- German Teaching (22 hours)
- Health Education (22 hours)
- History Teaching (21 hours)
- Japanese Teaching (25–37 hours)(see Department of Asian and Near Eastern Languages)
- Latin Teaching (22 hours)(see Department of Humanities, Classics, and Comparative Literature)
- Mathematics Education (29 hours)
- Physics Teaching (25 hours)
- Political Science Teaching (21 hours)
- Psychology Teaching (21 hours)
- Russian Teaching (31–32 hours)(see Department of Germanic and Slavic Languages)
- Sociology Teaching (21 hours)
- Spanish Teaching (21 hours)
- Teaching English to Speakers of Other Languages (TESOL)(K–12)(21 hours)(see Linguistics and English Language Department)
- Theatre Arts Education (33 hours)

Option 2: Restricted Teaching Major and Approved Teaching Minor
The following subjects *require* an approved teaching minor from a frequently taught academic area.

Health Science: School Health Education (74–80 hours)
Japanese Teaching (85–103 hours)(see Department of Asian and Near Eastern Languages)
Latin Teaching (81–95 hours)(see Department of Humanities, Classics, and Comparative Literature)

Approved Teaching Minors for Option 2 Teaching Majors

Art Education (21 hours)
Chemistry Education (16–18 hours)
Coaching and Teaching Physical Education (23.5–27.5 hours)
Driver Safety Education (16 hours)(see Department of Health Science)
English Teaching (27 hours)
French Teaching (24–39 hours)
Geography Teaching (18 hours)
German Teaching (22 hours)
History Teaching (21 hours)
Mathematics Education (29 hours)
Physics Teaching (25 hours)
Spanish Teaching (21 hours)
Theatre Arts Education (33 hours)

Option 3: Composite Teaching Major
A teaching composite enables a student to complete a broader range of content area courses. However, a composite requires at least 46 hours in the teaching major, usually exceeding the 120 hours required for graduation. Teaching composite majors are available in the following subject areas:

Art Education: K–12 (84.5 hours)
Biology Composite Teaching (98–101 hours)(see Department of Integrative Biology)
Earth and Space Science Education (81–86 hours)(see Department of Geology)
Family and Consumer Science Education (79–81 hours)(see School of Family Life)
Humanities Composite Teaching (82–112 hours)
Music Education: K–12 Choral Emphasis (88 hours)
Music Education: K–12 Instrumental Emphasis (92 hours)
Physical Science Composite Teaching (77.5–79.5 hours)(see Department of Teacher Education)
Social Science Composite Teaching (75–77 hours)(see Department of Teacher Education)
Technology Teacher Education (75–77 hours)(see School of Technology)

Professional Education Requirements

All students in social science majors (i.e., social science composite, history, geography, humanities-history composite), English, biology composite majors, and physical science majors (i.e., physical science composite, physics, chemistry, geology, and earth and space science) must declare their major status by filling out an application online or through the Teacher Education Department office before beginning secondary education courses.

Regardless of the option chosen for the content area course work, all students licensing in secondary education must complete the following courses:

1. Complete the following prerequisite course:
   ScEd 276R.
2. Complete the following:
   ScEd 351, 375.
3. Complete 1 hour from the following:
   IP&T 286.

   Note: Two hours may be completed, with one hour used for ScEd 376R (see item 5 below).
4. Complete one course from the following:
   ScEd 326.
   Soc 326.
5. Complete 1 hour from the following:
   ScEd 376R.
6. Complete 12 hours from the following:
   ScEd 476R or 496R (interns only).
7. A teaching methods course must be completed within the teaching major or composite before student teaching. *Biological science, physical science, mathematics, and social science majors must complete ScEd 377R (3.0 credit hours) as their methods course.* For other majors, refer to the appropriate advisement center or major course listing regarding the methods class.

Student Teaching Prerequisites

1. *Teaching Major.* Complete at least 24 hours in their teaching major or 36 hours in a composite teaching major. Some departments require more than this minimum before they will clear a candidate for student teaching.
2. *Teaching Within a Minor.* Students requesting to student teach in the area of a teaching minor must (1) complete all minor course work before student teaching and (2) obtain written permission from the Teacher Education Department and the teaching minor department.
3. *Professional Education Courses.* Complete ScEd 276R, 326 (or Soc 326), 351, 375, 376R (1 hour), IP&T 286, and the appropriate 377R or 477 methods course with a C or higher.
4. *Application.* Apply for student teaching at the Education Advisement and Certification Office. Packets are available online at *http://msed.byu.edu/fieldservices/*

Licensing Procedures

Students are responsible for keeping the Education Advisement and Certification Office informed of their progress toward licensure. If any changes are to be made in the licensing program outlined in this catalog, the student must prepare and circulate the necessary memoranda to obtain approval from both the academic major department and secondary education.

To avoid undue delay licensing, students are urged to arrange for a personal review of their Education Advisement and Certification Office file well in advance of registering for their final semester, because completion of graduation requirements does not necessarily mean that all licensing requirements have been met.

Teaching Majors, Teaching Minors, and Composite Teaching Majors

The following is a list of teaching majors and minors offered jointly with the Department of Teacher Education and other academic departments throughout the university. For specific major course requirements, see the department offering the teaching major or minor. For licensure requirements, refer to the above information.

Teaching Majors and Composite Teaching Majors

(Hours listed include courses taken to fill both major and licensure requirements.)

Art Education (K–12) (84.5 hours)
Biology Composite Teaching (98–101 hours)(see Department of Integrative Biology)
Chemistry Education (79.5–82.5)
Dance Education (69–71 hours)
Earth and Space Science Education (81–86 hours)(see Department of Geology)
English Teaching (71–72 hours)
Family and Consumer Science Education (79–81 hours)(see School of Family Life)
French Teaching (92–98 hours)

Geography Teaching (86–94 hours)
German Teaching (99–105 hours)
Health Science: School Health Education Emphasis (74–80 hours)
History Teaching (61–62 hours)
Humanities Composite Teaching (82–112 hours)
Japanese Teaching (85–103 hours)(see Department of Asian and Near Eastern Languages)
Latin Teaching (81–95 hours)(see Department of Humanities, Classics, and Comparative Literature)
Mathematics Education (70–71 hours)
Music Education: K–12 Choral Emphasis (88 hours)
Music Education: K–12 Instrumental Emphasis (92 hours)
Physical Education: Public School Teaching (K–12) Emphasis (81.5–83.5 hours)
Physical Science Composite Teaching (77.5–79.5 hours)(see Department of Teacher Education)
Physics Teaching (73.5–75.5 hours)
Social Science Composite Teaching (75–77 hours)(see Department of Teacher Education)
Spanish Teaching (80–103 hours)
Special Education: Mild/Moderate Disabilities Emphasis (46 hours)(See Department of Counseling Psychology and Special Education)
Special Education: Severe Disabilities (46 hours) (See Department of Counseling Psychology and Special Education)
Technology Teacher Education (75–77 hours)(see School of Technology)
Theatre Arts Education (74–75 hours)

Teaching Minors

Art Education (21 hours)
Chemistry Education (16–18 hours)
Chinese Teaching (26–42 hours)(see Department of Asian and Near Eastern Languages)
Coaching and Teaching Physical Education (23.5–27.5 hours)
Computer Science Teaching (20 hours)
Driver Safety Education (16 hours)(see Department of Health Science)
English Teaching (27 hours)
French Teaching (24–39 hours)
Geography Teaching (18 hours)
Geology Teaching (16 hours)
German Teaching (22 hours)
Health Education (22 hours)
History Teaching (21 hours)
Japanese Teaching (25–37 hours)(see Department of Asian and Near Eastern Languages)
Latin Teaching (22 hours)(see Department of Humanities, Classics, and Comparative Literature)
Mathematics Education (29 hours)
Physics Teaching (25 hours)
Political Science Teaching (21 hours)
Psychology Teaching (21 hours)
Russian Teaching (31–32 hours)(see Department of Germanic and Slavic Languages)
Sociology Teaching (21 hours)
Spanish Teaching (21 hours)
Teaching English to Speakers of Other Languages (TESOL)(K–12) (21 hours)(See Linguistics and English Language Department)
Theatre Arts Education (33 hours)

Teaching Composite Majors Offered by the Department of Teacher Education

BS Teaching Physical Science (77.5–79.5 hours*, including licensure hours)

Major Requirements

1. Complete the following:
   Biol 100.
   Chem 105, 106, 107, 223, 351, 501.
   Geol 111, 112, 210.
   Phil 423.
   Phscs 105, 106, 107, 108, 127, 137.
2. Complete one course from the following:
   Geol 286, 351, 370, 480.
3. Declare major status by application online or through the Teacher Education Department office.
4. Complete the Professional Education Component (27–28 hours).

*Hours include courses that may fulfill GE or university requirements.

BS Teaching Social Science (75–77 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following:
   Hist 201, 202, 220, 221, 364.

   Note: Hist 364 must be completed before ScEd 476R/496R.
2. Complete one course from 300-level or above history courses.
3. Complete the following:
   Geog 101, 130.
4. Complete one course from the following:
   Geog 302, 331, 341, 346, 401, 405, 450, 455, 460, 465, 470, 471, 480, 485.
5. Complete the following:
   Econ 110.
   and
   Either any 200-level or above economics course
   Or one of the following courses:
   BusM 340, 372.
   Geog 331.
   ManEc 300**, 376**.
   PlSc 344, 372.
   PMgt 385**.

   **Go to 480 TNRB to receive permission to register for these courses.
6. Complete the following:
   PlSc 110.
7. Complete the following:
   Either PlSc 150
   Or any 300-level or higher political science course.
8. Complete the following:
   Psych 111.
9. Complete one course from the following:
   Psych 321, 341, 342, 350, 361, 365.

10. Complete one course from the following:
    Soc 111.
    Anthr 101, 110.
11. Make application to the Teacher Education Department (201 MCKB) one semester in advance to begin the secondary education program. Because of space limitations not everyone who applies will be accepted.
12. Complete the Professional Education Component (28–29 hours).

*Hours include courses that may fulfill GE or university requirements.

Secondary Education (ScEd)

Undergraduate Courses

276R. Exploration of Teaching. (4:Arr.:Arr. ea.) F, W Prerequisite: 30 semester hours or sophomore status.
Field-based, team-taught, initial teaching experience that helps potential teachers identify their strengths and weaknesses in viable educational settings.

326. Foundations of Teaching. (2:2:0) F, W, Sp, Su Prerequisite: ScEd 276R.
Knowledge base of teaching, including social, legal, familial, governmental, technological, and empirical impacts upon the teacher's personal and professional life.

351. Multicultural and Exceptional Education. (2:2:0) F, W, Sp Su Prerequisite: ScEd 276R.
Promoting constructive interaction both with students of differing economic, social, racial, and ethnic backgrounds and students with exceptional physical and mental conditions. Field trip required.

375. Theory and Methods of Secondary Education. (3:3:0) F, W, Sp, Su Prerequisite: ScEd 276R.
Disciplines of education; analysis of educational practice and relationship between theories and research on education and the practice of teaching.

376R. (ScEd-IP&T) Secondary Education Field and Specialty Experiences. (1–2:Arr.:Arr. ea.) F, W, Sp, Su Independent Study also for secondary education majors. Prerequisite: ScEd 276R.
School-related experiences to provide preservice teachers with field or specialty experiences related to specific teaching majors.

377R. Teaching Methods and Instruction. (3:3:0 ea.) F, W Prerequisite: ScEd 276R.
Teaching secondary-specific courses in mathematics, science, or social studies; discussions, demonstrations, materials, planning. Students must enroll for section that corresponds with appropriate teaching major.

450. Foundations for Bilingual/ESL Education. (2:2:0) F Prerequisite: ScEd 276R.
Identifying and assessing legal, linguistic, cultural, community, and familial issues affecting the access of Limited English Proficient (LEP) student populations to education.

476R. Secondary Student-Teaching Internship. (1–12:Arr.:Arr. ea.) F, W Prerequisite: application to licensure program in David O. McKay School of Education; completion of IP&T 286, ScEd 276R, 326, 351, 375, 376R, appropriate 377R or 477 methods course; successful completion of at least 24 hours in teaching major or 36 hours in composite teaching major.
Semester-long, full-day student teaching internship in the public schools. Seminar attendance required. Fee.

477R. Practicum in Bilingual/ESL Education. (0.5–3:0:Arr. ea.) F, W Prerequisite: concurrent enrollment in ScEd-ElEd 450, Ling 440, 460, 471, 472, FamLf 305.
Practicum in teaching students with limited English proficiency.

490R. Senior Seminar. (1–2:2:0 ea.) F, W, Sp, Su Prerequisite: instructor's consent.

493R. Readings. (1–2:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.

496R. Academic Internship: Secondary Education. (1–15: Arr.:Arr. ea.) Prerequisite: ScEd 276R, 326, 351, 375, 376R, IP&T 286, and completion of 30 teaching major credits.
Full-time, full-year teaching in approved secondary schools. University and secondary school supervision. Contractual agreement. Seminar attendance required. Fee.

500-Level Graduate Courses (available to advanced undergraduates)

505. Adolescent Literacy. (2:2:0) F, W, Sp, Su Prerequisite: ScEd 276R or 375; or equivalents.
Issues, theories, and practices of literacy instruction for adolescent learners, including methods to help students read and write in the content areas.

514R. Special Topics in Secondary Education. (1–3:3:3 ea.) On dem.

Note: ScEd 514R and 515R are for recertification only. These courses do not count toward preservice secondary licensure or graduate degrees.
—Computers in Education
—Curriculum and Instruction
—Fine Arts Education
—Foreign Language Education
—Health and Physical Education
—Language Arts Education
—Mathematics and Computer Science Education
—Reading in the Content Area
—Science Education
—Social Science Education

515R. Special Topics in Education. (1–3:Arr.:1 ea.) On dem. These courses must have prior approval of department to count toward graduate degrees.
—Reading in the Content Area
—Science Education
—Secondary Curriculum
—Secondary Instruction
—Teaching and Learning

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Teacher Education Faculty

Professors

Bullough, Robert V., Jr. (1999) BS, MEd, U. of Utah, 1971, 1973; PhD, Ohio State U., 1976.
Chilcoat, George (Skip) (1989) BA, MEd, EdD, Arizona State U., 1972, 1975, 1983.
Earle, Rodney S. (1993) BA, MEd, Brigham Young U., 1971, 1973; PhD, Indiana U., 1981.
Egan, M. Winston (1993) BA, Brigham Young U., 1967; MAT, Oakland U., 1972; PhD, U. of Florida, 1974.
Eldredge, J. Lloyd (1981) BS, Brigham Young U., 1958; MS, EdD, U. of Utah, 1962, 1970.
Hansen, J. Merrell (1988) BA, MEd, Brigham Young U., 1964, 1967; PhD, U. of Texas, Austin, 1971.
Jacobs, James S. (1976) BA, U. of Utah, 1968; MA, Stanford U., 1970; EdD, U. of Georgia, 1978.
Monroe, Eula Ewing (1992) BS, MA, Western Kentucky U., 1960, 1964; EdD, George Peabody Coll. of Vanderbilt U., 1980.
Tolman, Marvin N. (1975) BS, Utah State U., 1964; MEd, U. of Utah, 1969; EdD, Utah State U., 1975.
Tunnell, Michael O. (1992) BA, Brigham Young U., 1973; MEd, Utah State U., 1978; EdD, Brigham Young U., 1986.

Associate Professors

Birrell, James (1993) BS, Brigham Young U., 1981; MEd, U. of Utah, 1984; EdD, U. of Nevada, Las Vegas, 1993.

Erickson, Lynnette B. (1996) BS, MA, Brigham Young U., 1978, 1987; PhD, Arizona State U., 1996.

Morrison, Timothy G. (1994) BA, MEd, Brigham Young U., 1977, 1979; PhD, U. of Illinois, Urbana-Champaign, 1986.

Pinnegar, Stefinee (1992) BS, MA, Brigham Young U., 1978, 1989; PhD, U. of Arizona, 1992.

Wentworth, Nancy M. (1992) BS, MA, PhD, U. of Utah, 1971, 1972, 1992.

Wilcox, Brad (1990) BS, MEd, Brigham Young U., 1985, 1990; PhD, U. of Wyoming, 1994.

Assistant Professors

Clemmer, Janice White (1980) BS, Brigham Young U., 1964; MA, Dominican Coll. of San Rafael, 1975; MA, U. of San Francisco, 1976; PhD, PhD, U. of Utah, 1979, 1980; JD, Brigham Young U., 1993.

Draper, Roni Jo (2000) BS, MS, PhD, U. of Nevada, Reno, 1991, 1995, 2000.

Hall, Kendra (2002) BS, Brigham Young U., 1996; MA, PhD, Columbia U., 2000, 2002.

Sabey, Brenda (2001) BS, MEd, Brigham Young U., 1986, 1992; PhD, U. of Nevada, Reno, 1997.

Smith, Leigh K. (2001) AS, BS, MA, Brigham Young U., 1975, 1989, 1995.

Smith, Stephanie Z. (1995) BS, Brigham Young U., 1984; PhD, U. of Wisconsin, Madison, 1998.

Teemant, Annela (1998) BA, MA, Brigham Young U., 1983, 1988; PhD, Ohio State U., 1997.

Tuttle, Marie (1976) BS, MEd, Brigham Young U., 1969, 1976; PhD, Texas A&M U., 1995.

Young, Janet R. (1996) BS, MA, Brigham Young U., 1974, 1989; PhD, U. of Oklahoma, 1996.

Emeriti

Allred, Ruel A. (1961) BS, MS, Brigham Young U., 1954, 1958; EdD, U. of Oregon, 1965.

Allred, Wallace E. (1956) BS, MEd, Brigham Young U., 1956, 1957; MS, Oregon State U., 1965; PhD, U. of Utah, 1971.

Anderson, Enid R. (1968) BS, MA, EdD, Utah State U., 1951, 1956, 1972.

Arnoldsen, Larry M. (1969) BS, Brigham Young U., 1960; MA, California State Polytechnic U., 1965; EdD, Brigham Young U., 1985.

Baird, Joseph Hugh (1963) BS, MS, U. of Utah, 1954, 1954; EdD, U. of California, Berkeley, 1962.

Belt, W. Dwayne (1961) BA, Brigham Young U., 1952; MA, EdD, Colorado State Coll., 1958, 1961.

Berryessa, Max J. (1963) BS, MS, Brigham Young U., 1948, 1949; EdD, Stanford U., 1959.

Black, Harvey B. (1970) BA, MA, Brigham Young U., 1950, 1954; PhD, Indiana U., Bloomington, 1962.

Bowles, Catherine (1960) BS, MEd, Brigham Young U., 1936, 1953.

Campbell, Milo Kay (1966) BA, MEd, Brigham Young U., 1961, 1966; PhD, Wayne State U., 1972.

Chai, Henry K. (1971) BS, Brigham Young U., 1951; MA, EdD, Arizona State U., 1962, 1979.

Clark, D. Cecil (1974) BS, MS, Brigham Young U., 1960, 1961; PhD, Stanford U., 1965.

Clark, H. Clifford (1969) BS, EdD, Brigham Young U., 1954, 1963; MA, California State U., Los Angeles, 1957.

Clark, Welsford Hone (1956) BS, MEd, Brigham Young U., 1956, 1962.

Compton, Lane A. (1953) BS, MS, EdD, U. of Utah, 1944, 1951, 1955.

Cook, Paul F. (1977) BS, Utah State U., 1960; MS, PhD, Brigham Young U., 1966, 1968.

Coombs, C. Garn (1971) BS, U. of Utah, 1962; MA, DA, Carnegie-Mellon U., 1968, 1975.

Cutler, Beverly R. (1969) BA, U. of Utah, 1952, MS, Brigham Young U., 1963; PhD, Stanford U., 1966.

Daines, Delva (1955) BS, MS, Utah State U., 1940, 1947; EdD, Washington State U., 1956.

Dunn, James W. (1970) BS, MS, EdD, Brigham Young U., 1950, 1960, 1968.

Edwards, Clifford H. (1978) BS, MEd, Utah State U., 1962, 1964; EdD, U. of Utah, 1968.

Hardy, Garry Ray (1970) BS, Utah State U., 1961; MS, Brigham Young U., 1970; EdD, U. of Houston, 1977.

Harmon, Frank W. (1963) BS, MS, U. of Utah, 1952, 1956; EdD, Columbia U., 1964.

Harris, R. Carl (1975) BS, MS, Utah State U., 1967, 1968; PhD, Pennsylvania State U., 1971.

Heil, Lillian H. (1974) BA, Fresno State Coll., 1950; MS, U. of Utah, 1960; EdD, Columbia U., 1968.

Henderson, E. Dean (1964) BS, MEd, Utah State U., 1936, 1958.

Koplin, Joanne W. (1968) BS, U. of Utah, 1951; MEd, Brigham Young U., 1976.

Larsen, Jean M. (1963) BS, MS, Brigham Young U., 1953, 1960; PhD, U. of Utah, 1972.

Livingston, Nancy (1992) BS, MS, U. of Utah, 1964, 1970; EdD, Brigham Young U., 1975.

Moore, Blaine H. (1970) BS, MEd, Brigham Young U., 1955, 1960; EdD, Colorado State Coll., 1969.

Nelson, Marvin N. (1959) BS, MS, Brigham Young U., 1951, 1961; PhD, U. of Utah 1975.

Rasband, Mima (1952) BS, MS, Brigham Young U., 1937, 1950.

Rogers, J. Keith (1971) BS, MEd, Brigham Young U., 1959, 1963; PhD, Michigan State U., 1971.

Searle, June G. (1961) BS, MEd, Brigham Young U., 1958, 1967; PhD, U. of Utah, 1974.

Storrs, Jane G. (1960) BS, MS, Brigham Young U., 1946, 1960.

Sucher, Floyd (1991) BS, Brigham Young U., 1954; MA, California State U., Los Angeles, 1957; EdD, Northern Colorado State U., 1963.

Walker, Jess M. (1993) BS, MA, U. of Utah, 1960, 1964; PhD, Michigan State U., 1972.

Wilcox, Ray T. (1957) BS, MEd, Brigham Young U., 1951, 1954; EdD, U. of California, Berkeley, 1957.

Wolfgramm, Harold F. (1966) BS, MS, PhD, U. of Utah, 1959, 1960, 1964.

Teaching English to Speakers of Other Languages (TESOL)

See Linguistics and English Language section of this catalog.

School of Technology

Thomas L. Erekson, Director
265 CTB, (801) 422-6300

College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325

Admission to Degree Program

Each degree program in the School of Technology has specific enrollment requirements. Please see each program's admission requirements for specific details.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed for graduation	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BS	Construction Management
BS	Facilities Management
BFA	Industrial Design
BS	Information Technology
BS	Manufacturing Engineering Technology
BS	Technology Teacher Education
Minors	Information Technology
	Manufacturing

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Engineering Technology
MS	Technology Education

For more information see the BYU 2003–2004 Graduate Catalog.

Additional Degree Program Offered

A BFA in animation is currently being offered as an interdisciplinary degree by the College of Fine Arts and Communications through the cooperative involvement of its Department of Theatre and Media Arts, its Department of Visual Arts, and the College of Engineering and Technology's School of Technology. Please see the Visual Arts section of this catalog for degree requirements or go to the College of Fine Arts and Communications Advisement Center for more information about entrance requirements to this program.

General Information

Financial Support Opportunities

In addition to general university scholarships and student employment, the School of Technology offers scholarships, an academic internship program with industry, and a variety of departmental part-time jobs such as research assistant, new-product developer, lab assistant, paper grader, electronics technician, maintenance assistant, computer operator, etc.

Academic Internships

Industrial experience in the major before graduation is strongly encouraged. Qualified students may enroll in an academic internship, which must be approved before the actual experience. A formal report and employer evaluation are required.

Transfer Credit

When transferring into the school, students should meet with an assigned advisor before registering for classes to evaluate their technical courses and to get help in planning their schedule for completing their remaining course work.

Extracurricular Activities

Students are encouraged to join student chapters of national professional organizations affiliated with their major area of study. Student interaction, leadership, and career awareness are important to engineering and technology studies. All majors are encouraged to not only become members and actively participate in these chapters but also to support field trips, guest speakers, banquets, and program activities.

Professional Program Acceptance

Students must be accepted into the professional program before they may take upper-division courses in any of the department programs. Construction management and industrial design have additional restrictions that apply to major courses. (See the Construction Management and the Industrial Design sections of this catalog that follow.) A professional program application (available from the College of Engineering and Technology Advisement Center, 264 CB) must be completed and submitted to the advisement center. Acceptance is based primarily upon the grade point average received in preprofessional and other major courses, including all grades in repeated courses.

Academic Standards and Continuance

On gaining acceptance into the professional program, students must maintain a minimum university cumulative grade point average of 2.0. A professional program course may not be retaken more than once.

Student Advising

We strongly encourage students to visit with the School of Technology advisor (170 SNLB) at least every year, and preferably every semester, to ensure that they are making appropriate progress in the program and taking courses in the appropriate sequence.

Construction Management

Jay P. Christofferson, Chair
230 SNLB, (801) 422-2021

Admission to Degree Program

Admission to the construction management (CM) preprofessional program is open to all BYU students. Students may then apply for the professional program. An application to the professional program must be submitted upon completion of required prerequisite courses (Phscs 105, Engl 115, Math 112, and CM 105). Along with the application, the candidate should send a resumé and a letter indicating why he or she would like to major in construction management, including in it a paragraph explaining the candidate's intentions for fulfilling the required 300 hours of construction-related work. Applicants will be evaluated based on GPA, work experience, and leadership.

Program application deadlines are August 1 for fall semester, December 1 for winter semester, and April 1 for spring term.

The Discipline

Construction management is the business of managing projects. It is a rapidly growing field that requires technical expertise and the ability to work with people, and there is increasing demand in the industry for capable graduates. Construction management offers an exciting career that requires abilities in business management, architecture, engineering, and construction technology.

Career Opportunities

The program has had nearly 100 percent placement within the construction industry, with salaries typically near the top range of BYU graduates. Graduates find employment in a variety of construction-industry-related positions. Typical position titles are superintendent, estimator, scheduler, field engineer, general contractor, safety engineer, project manager, procurement manager, project engineer, cost controller, project controller, site analyst, etc.

Alumni find they are qualified for employment in all types of construction. It is a broad-based program that provides the training and experience needed for several occupational opportunities.

This major is also excellent preparation for students desiring graduate study in architecture, business management, or construction law.

General Information

High School Preparation

Recommended high school courses include drafting, algebra, trigonometry, calculus, physics, and construction, along with the other courses necessary for admittance to BYU.

Prearchitecture Program

Brigham Young University does not have an architecture program, but construction management provides an excellent preparatory program for architecture. Consult with the School of Technology advisor concerning a prearchitecture program.

Special Notice

Students receiving C– or lower grades in required courses will be placed on department probationary status.

BS Construction Management (98 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the School of Technology advisor for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following preprofessional courses:
   CM 105.
   Engl 115.
   Math 112.
   Phscs 105.
2. Be accepted into the professional program.
3. Students must complete 300 hours of preapproved construction-related work after acceptance into the professional program and submit a report during the CM 491R class.
4. Complete the following professional courses:
   CM 155, 210, 211, 217, 241, 311, 320, 335, 345, 385, 411, 412, 415, 426, 445.
   CEEn 103, 113, 302.
5. Complete seven registrations of the following (one enrollment each semester except when enrolled in CM 491R):
   CM 291R.
6. Complete one registration of the following during fall semester of senior year:
   CM 491R.
7. Complete the following supporting courses:
   Acc 200.
   BusM 300.
   Econ 110.
   Geol 330.
   OrgB 320.
   Phscs 106.
   RelC 492 (2 hours required).
   Stat 221.
   TMA 150.
8. Complete one course from the following:
   MCom 320.
   Engl 316.

*Hours include courses that may fulfill GE or university requirements.

Construction Management (CM)

Undergraduate Courses

105. Construction Documents. (3:3:0) F, W
How and why specific types of contract documents and specifications are compiled for a project; reading and interpreting complex construction documents. Fee.

155. Architectural Drafting. (3:2:3) F, W
Developing architectural plans: floor, foundation, plot, elevations, sections, and details. Introduction to architectural CAD. Fee.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

210. Light Structural Systems. (3:2:4) F, W
Light structural construction using wood and metal framing systems. Fee.

211. Finishing Methods in Construction. (2:2:0) F, W
Managing the interior and exterior finish work in construction. Quality-control procedures and inspection. Fee.

217. Concrete and Masonry Construction. (3:2:3) F, W
Quality concrete and masonry, including admixtures, concrete forming reinforcement, curing, and testing. Brick and block masonry construction. Quality-control. Fee.

241. Electrical Systems in Construction. (2:2:2) F, W
Electrical circuits in the construction industry. Fee.

291R. Undergraduate Seminar. (0.5:1:0 ea.) F, W
Required each semester for undergraduate majors who are not enrolled in CM 391R or 491R. School lecture series attendance required.

311. Quantity Takeoffs. (3:3:0) F, W Prerequisite: CM 210, 211, 217.
Compiling, organizing, and analyzing all the items that influence and contribute to total cost of residential and commercial construction projects. Maximizing estimating effectiveness and efficiency through computer integration.

320. Mechanical Systems. (3:3:0) F, W Prerequisite: CM 210.
Basic plumbing and HVAC principles, materials; installation and application methods. Systems sizing and design, heat loss/gain calculations, and payback analysis. Managing the plumbing and HVAC trades. Fee.

335. Construction Equipment and Soils Mechanics. (3:3:0) F, W Prerequisite: Geol 330.
Basic soil mechanics and subsurface construction theory and practice for foundations of building and engineered facilities. Underpinning, piling, dry and wet excavating, dewatering, cofferdams, caissons, and spread and strip foundations. Lecture, field trips.

345. Construction Safety Management. (2:2:0) F, W
Safety requirements and responsibilities in construction; cost and impact of accidents; accident investigation; safety inspection; hazards analysis; substance abuse; record keeping.

385. Construction Contracts and Law. (3:3:0) F, W
Contractual obligations defined, including agency, contract interpretation, performance and liability issues, breach and termination, judicial remedy, and arbitration as applied to the construction industry. Overview of municipal zoning ordinances and codes.

411. Advanced Estimating and Bidding. (3:2:3) F, W Prerequisite: CM 311 or instructor's consent.
Competitive bidding strategies, design-build methods, bid analysis, and project buyout in construction. Computerized estimating systems. Fee.

412. Construction Scheduling and Cost Control. (3:2:3) F, W Prerequisite: CM 311 or instructor's consent.
Planning, scheduling, and monitoring construction projects, including development of critical path networks (CPM and PERT), Gannt bar charts, construction cost control, and reporting practices. Fee.

415. Construction Project Management and Control. (3:3:0) F, W Prerequisite: CM 412 or concurrent enrollment.
Managing and controlling construction projects. Planning, startup procedures, inspections, progress measurements, field reports, change order and submittal processing, equipment management, and project closeout.

426. Real Estate Principles and Development. (4:4:0) F, W Prerequisite: BusM 300 and instructor's consent.
Principles of real estate investments, emphasizing mortgage instruments and development of property from raw land to residential and commercial properties. Fee.

445. Construction Company Operations and Management. (3:3:0) F, W Prerequisite: CM 415, BusM 300.
Organizing, controlling, and directing operations of construction companies; financial management, budgeting, cash-flow analysis, purchasing and cost control, and business planning.

491R. Senior Seminar. (0.5:1:0 ea.) F
Developing best employment opportunities and strategy; interviewing, sales negotiations, resumé and letter writing, and salary negotiations. College Lecture attendance required. Report on 300 hours of construction-related work experience.

494R. Special Problems in Construction Management. (1–3:Arr.:Arr. ea.) F, W Prerequisite: instructor's consent. Fee.

Facilities Management

Jeffery L. Campbell, Chair
230 SNLB, (801) 422-2021

Admission to Degree Program

Admission to the facilities management preprofessional program is open to all BYU students, who may then apply for the professional program. After completing required prerequisite courses, candidates should send an application to the professional program, along with a letter indicating what skills they have that would make them a successful facility manager; a description of the candidate's leadership experience; and a resumé. Applicants will be evaluated based on GPA, skills, leadership, and work experience.

Program application deadlines are January 5 for fall semester and August 30 for winter semester.

The Discipline

This program prepares students to be part of the administrative/supervisory team in the increasingly complex world of facilities and property management. The facilities manager combines management practices with the most current technical knowledge in eight competency areas: real estate, operations and maintenance, human and environmental factors, project planning and management, finance, quality assessment and innovation, facility function, and communication.

Career Opportunities

The program has nearly 100 percent job placement within the field of facilities management. Employment can be found with colleges and universities, hospitals and health care centers, governmental agencies, recreational complexes, airports, large industrial plants, and other institutions or businesses that have large facilities.

Responsibilities encompass supervision of planning, renovation, and maintenance of buildings and grounds. Attention is given to employee health and safety, security, disaster planning, and environmental concerns. The program is broad based and prepares managers for all types of facilities, with salaries among the upper-level of university graduates.

Further educational opportunities include advanced degrees in facilities management, business administration, public administration, or other related fields.

BS Facilities Management (87 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the School of Technology advisor for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following preprofessonal courses:
   Acc 200.
   Econ 110.
   FM 110.
   Stat 221.
2. Be accepted into the professional program.
3. Complete 2 hours of the following:
   FM 199R.
4. Complete eight registrations of the following:
   FM 291R.
5. Complete the following:
   BusM 300, 340.
   CM 105, 155, 210, 211, 241, 311, 320, 385, 412, 415, 426.
   FM 310, 320, 410, 420, 430.
   OrgB 320, 327.
   PAS 103.
   RMYL 483.
   TMA 150.
   VADes 102.
6. Complete one course from the following:
   BusM 371R, 380, 382, 384.

*Hours include courses that may fulfill GE or university requirements.

Facilities Management (FM)

Undergraduate Courses

110. Foundations of Facilities Management. (3:3:0) F, W
Profession of facilities management, including operations and maintenance, real estate, human and environmental concerns, finance, facility function, and project management.

199R. Academic Internship. (1–3:0:0 ea.) F, W, Sp, Su
Prerequisite: facilities management major; cooperative education coordinator's consent.
On-the-job work experience.

291R. Undergraduate Seminar. (0.5:1:0 ea.) F, W
Required each semester for facilities management majors not enrolled in FM 391R. Lecture attendance required.

310. Human and Environmental Management. (3:3:0) F, W
Prerequisite: facilities management major; FM 110.
Implementing practices that promote health, safety, security, quality of work life, environment, and organizational effectiveness.

320. Facilities Operations and Maintenance. (3:3:0) W
Prerequisite: facilities management major; FM 110, CM 241, 320.
Acquisition, operation, maintenance, and disposal of building systems; structures; permanent interiors, furniture, and equipment; grounds and other exterior elements.

410. Facilities Management Capstone. (3:3:0) W. Prerequisite: facilities management major; senior status.
Integrating major competencies in facilities management, emphasizing current industry issues, managing facility function, and problem solving. Prepares students for CFM exam.

420. Commercial Real Estate Management. (1:1:0) W 1st blk. Prerequisite: FM 110, CM 426.
Fundamentals of commercial real estate master planning; lease vs. buy decisions; managing the commercial real estate portfolio.

430. Asset Management. (3:3:0) W Prerequisite: FM 110.
Understanding life-cycle costs of all elements of a facility. How to implement preventive and predictive maintenance and eliminate deferred maintenance.

494R. Special Problems in Facilities Management. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.

Industrial Design

John F. Marshall, Chair
265 CTB, (801) 422-6300

Admission to Degree Program

Admission to the freshman level in the industrial design program is obtained through an application process. Special enrollment limitations for degree programs will be applied. Please see the School of Technology advisor (170 SNLB) for specific details.

The Discipline

The industrial design program serves three main purposes: (1) preparing competent professionals in various fields of design, (2) preparing qualified designers in problem solving of two- and three-dimensional applications, and (3) developing the aesthetic sense of individuals by helping them experience design.

Career Opportunities

Industrial designers specialize in areas as diverse as automobiles, toys, sports and medical equipment, consumer products for the home, business, exhibits, furniture, electronics, and computer design. Computer modeling and visualization are new areas for design exploration in the discipline.

General Information

Application Procedures for Freshmen

Students are accepted into the program only once a year. Enrollment is limited and based on several qualifications:

1. Admission to the university.
2. Completion of the program application form.
3. Submission of the slide portfolio.
4. Completion of the creative exercise.
5. Passing the portfolio review.

Appropriate forms are contained in an application packet available from the School of Technology office (170 SNLB).
Application packets must be obtained before July 1 and returned before August 1. Individuals will be notified whether or not they have been accepted by August 15.

Note: Individuals receiving notice of acceptance will be permitted to register for the foundation 100-level core courses fall and winter for the academic year immediately following their acceptance. Failure to do so will require reapplication to the industrial design program for the year the student actually plans to attend.

Sophomore-Through-Senior BFA Degree Program Enrollment

Permission to enroll for sophomore- through senior-level BFA degree program courses is granted to students upon satisfactory development of skills and creative abilities, demonstrated in a review of a drawings-and-designs portfolio completed during the preceding year. Faculty will assess portfolios of work submitted by students wishing to advance in their study. Students invited to

continue are permitted to enroll in specified courses at the next academic level.

Transfer Students

Transfer students must participate in a portfolio review to be held in August in conjunction with the freshman portfolio review. Application packets must be obtained before July 1 and returned before August 1. Enrollment is limited and based on several qualifications:

1. Admission to the university.
2. Completion of program application form.
3. Submission of transcript showing credit for university-level art instruction.
4. Submission of slide portfolio.
5. Passing of portfolio review.

Contact the School of Technology advisor (170 SNLB) for admission packets and formal application procedures.

Degree Program Advisors

Advisors are appointed to counsel students in the major. Advisors will advise students about program objectives, course content and sequence, career goals, and other matters pertaining to their major field of study.

Department Probationary Status

Students can be placed on probationary status for the following:

1. Inadequate academic performance.
2. Unprofessional attitude and lack of commitment.
3. BYU Honor Code violations.

Industrial Design Core

Required of all industrial design majors, the core is a predisciplinary preparation that embraces knowledge and skills from each discipline and underlying principles common to all disciplines. The core is designed to serve students more efficiently by facilitating their progress through the program and allowing flexibility in choosing their individual program direction. It also enables students to acquire a basic and broad understanding before engaging in the specific discipline's content and modes of inquiry.

BFA Industrial Design (69–70 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the School of Technology advisor (170 SNLB) for information regarding requirements for admission to this major.

Major Requirements

1. Meet application criteria for admission into program.
2. Complete all 100-level foundation courses before admission into sophomore-level courses.
3. No D credit is allowed in major courses and required support courses.
4. Submit a portfolio at the conclusion of each year for advancement to the next year's curriculum.
5. Complete the following core requirements.
   InDes 130, 131, 132, 133.
6. Complete the following:
   InDes 199R (1 hour minimum), 210, 214R, 230, 231, 232, 233, 310, 330, 340, 341, 410R, 430, 488.
   TTE 229.
7. Complete one course from the following:
   InDes 332 or 335R.
8. Complete one course from the following:
   InDes 432 or 435R.
9. Complete 6 hours from the following:
   InDes 497R.
10. Complete the following history requirement:
    InDes 339.
11. Complete one course from the following history requirements:
    ArtHC 367.
    VADes 329.
12. Complete 3 hours from one of the following:
    InDes 494R.
    Mfg 355.
    TMA 452R.
    VAStu 353R.

Industrial Design (InDes)

Undergraduate Courses

130. Visual Design Language/Computers for Industrial Design. (3:3:3)
Visual organization; principles and elements of design. Digital image manipulation/creation for industrial design. Raster- and vector-based programs.

131. Perceptual Drawing/Rapid Visualization. (3:3:3)
Sharpening observation skills and learning specific tools related to form construction/indication, shadow construction, and reflections. Drawing as communication; rapid visualization techniques.

132. Form and Surface Development. (3:3:3)
Exploring origin and nature of geometric and organic form. Learning to control specific surface characteristics such as highlight and finish.

133. Technical Drawing/Perspective Systems. (3:3:3)
Specific tools relating to technical drawing and formal perspective systems. Orthographic projection, dimensioning, and perspective construction theories.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: admission by portfolio.
Work experience evaluated by supervisor and posted on student's transcript.

210. Intermediate Computer Applications. (2:0:2) Prerequisite: industrial design core.
Computer software programs relative to design disciplines.

214R. Model Making and Prototyping. (2–3:2:Arr. ea.) Prerequisite: industrial design core or technology teacher education major status; TTE 229 or concurrent enrollment.
Theories and fundamentals of model making and prototype construction. Creative use of multiple materials and processes. Plastic, composites, foam, wood, metal, and found objects.

230. Introduction to Industrial Design. (2:2:2) Prerequisite: industrial design core.
Industrial design research, analysis, and problem-solving methods.

231. Presentation Methods for Industrial Design 1. (2:2:2) Prerequisite: industrial design core.
Product presentation methods emphasizing perspective, value, scale, accuracy, and color.

232. Industrial Design Studio 1. (3:3:3) Prerequisite: InDes 230, 231.
Continuation of InDes 230, emphasizing human factors and ergonomics, restrictions and possibilities of materials and manufacturing, and coherent presentation of problems, processes, and ideas.

233. Presentation Methods for Industrial Design 2. (2:2:2) Prerequisite: InDes 231.
Continuation of InDes 231.

250. Introduction to Three-Dimensional Computer Graphics. (2:4:0) F Prerequisite: admittance to animation major.
Fundamentals of modeling, texturing, lighting, and rendering used in exploring principles and elements of three-dimensional design.

251. Fundamentals of Two-Dimensional Computer Graphics. (2:4:0) F Prerequisite: admittance to animation major.
Learning design language by exploring elements of photography, drawing, and two-dimensional computer graphics, including color theory and conceptual elements of composition.

252. Introduction to Three-Dimensional Animation. (2:4:0) W Prerequisite: InDes 250, 251.
Foundational principles and techniques of three-dimensional animation, including timing and pacing, character setup, and dynamics.

310. Advanced Computer Applications. (3:3:3) Prerequisite: InDes 210.
Specific program applications of computers to design disciplines.

330. Industrial Design Studio 2. (3:3:3) Prerequisite: industrial design core.
Designer responsibilities, structured and unstructured procedures in problem solving, client relationships, functional relationships, and mechanisms and materials.

331. Presentation Methods for Industrial Design 3. (2:2:2) Prerequisite: InDes 231.
Sketching and rendering techniques focused on surface materials and finishes.

332. Industrial Design Studio 3. (3:3:3) Prerequisite: InDes 330.
Continuation of InDes 330 with renewed emphasis on human factors and ergonomics, plus market and user requirements and developing written briefs.

335R. Introduction to Furniture Design. (3:2:4 ea.) Prerequisite: foundation core.
Materials, structures, and production methods; prototype construction.

339. History of Products. (3:3:0) Prerequisite: industrial design core.
Overview of artifacts and products; how they have influenced society from prehistory to present day.

340. Corporate Identity Design. (3:3:3) Prerequisite: BFA acceptance.
Current philosophy in corporate identification and trademark design. Design trademarks, logotypes, and identity programs.

341. Packaging Design. (3:3:3) Prerequisite: BFA acceptance.
Packaging and its function in the marketplace; current packaging technology and aesthetics.

410R. Computer Applications Studio. (2:2:2 ea.) Prerequisite: InDes 310.
Individual major project using high-end hardware and software.

430. Industrial Design Studio 4. (3:3:1) Prerequisite: InDes 332, 333.
Systems design problems from initial research and analysis to final presentation of working drawings and models, with concern for ergonomics, anthropometries, marketing, user and buyer, production, function, and structure.

432. Industrial Design Studio 5. (3:3:3) Prerequisite: InDes 330, 332, 430.
Portfolio development based on advanced design projects.

435R. Advanced Furniture Design. (3:2:4 ea.) Prerequisite: InDes 335R.
Continuation of InDes 335R.

488. Professional Practices of the Designer. (2:2:0) Prerequisite: junior or senior standing.
Business aspects of the design profession.

489. Portfolio Preparation. (2:1:1)
Final portfolio preparation.

494R. Special Problems in Design. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in area of special interest.

496R. Academic Internship: Professional Internship. (1–6:Arr.:Arr. ea.) Prerequisite: school's and faculty advisor's consent.
Work experience in professional design studio evaluated by supervisor.

497R. BFA Final Project. (1–3:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Advanced individual project with minimum guidance, showing high degree of competence within chosen major.

499R. Directed Studies. (1–6:Arr.:Arr. ea.)

Information Technology

C. Richard G. Helps, Chair
265 CTB, (801) 422-6300

Admission to Degree Program

Admission to the information technology preprofessional program is open to all BYU students. After completing required prerequisite courses, they may then apply for the professional program. As part of the application the student must file a graduation plan and intended emphasis area. Application deadlines are June 1 for fall semester and November 1 for winter semester. See The School of Technology advisor (170 SNLB) for further information.

The Discipline

Information technology (IT), the technical discipline that solves problems using computing resources, will be taught through a combination of strong theoretical course work and practical application to ensure that all three aspects of the technological educational triumvirate (knowing, thinking, doing) are included. IT professionals from this discipline are competent to design computing systems with due consideration of the performance and compatibility aspects of hardware, software, and digital communication and networking. They can visualize, structure, and implement complex technical solutions.

Professionals in this discipline are also proficient in understanding user needs and communicating technical issues to the organizations and people affected by the computer system. They are "anxiously engaged" in lifelong learning to understand and wisely use new technologies as they become available. Broadly educated at the university level, these professionals have acquired balance in their lives and depth of understanding in technology and its relevance in the broader world context. Because of the influence and leadership roles we expect graduates to have, our students will be encouraged to develop high moral and ethical standards as well as being conversant with and compliant with professional performance standards.

Career Opportunities

Career opportunities are plentiful and rewarding in both large and small companies in technical fields. Graduates will find careers in computer networking, testing, embedded intelligence, digital communications, computer system development, and integration.

General Information

Technical Electives

Six upper-division credit hours of information technology technical courses are required. Selected from courses in the major, these electives must be approved by an advisor prior to taking them.

Students are also strongly advised to strengthen their degree by using additional credit hours to fulfill a minor or gain greater depth in a focused area of the discipline. Some suggested areas are electronic systems, computer science, industrial design, manufacturing, or business leadership.

High School Background

Recommended high school courses include computer programming, electronics, mathematics, and science courses.

Transfer Students

This degree is designed to have some similarity to computer science and electrical and computer engineering courses in the first few semesters. Students can transfer from these programs in two-year colleges or from other four-year programs.

Special Notice

Students receiving C– or lower grades in required courses will be placed on department probationary status. Students who accumulate more than 6 credit hours of grades below C– in professional program courses may not continue in the program or graduate until courses are retaken to reduce the unacceptable credit to 6 or fewer hours. No D– grade in the professional program will be applied toward graduation.

BS Information Technology (75.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the School of Technology advisor (170 SNLB) for information regarding requirements for admission to this major.

Major Requirements

1. Complete 30 hours of university-level credit with a minimum cumulative GPA of 2.0.
2. Complete the following preprofessional courses:
   CS 142.
   IT 104, 150, 210.
   Math 112, 113.
3. Complete the following supporting courses:
   CS 235.
   Econ 110.
   Engl 316.
   IT 241.
   Phscs 121, 123.
   RelC 492 (2 hours required).
   Stat 361.
4. Complete 1.5 hours of the following course:
   IT 291R.
5. Complete the following professional courses:
   IT 327, 344, 347, 350, 355, 446, 447.
6. Complete 2 hours of the following:
   IT 391R.
5. After consulting with an information technology advisor, complete 6 hours of information technology technical electives.

*Hours include courses that may fulfill GE or university requirements.

Minor Information Technology (15 hours)

Minor Requirements

1. Complete the following:
   IT 150, 241.
2. Complete one of the following options:
   Either IT 310
   Or IT 327, 347.
3. Complete one or two courses from the following to complete the 15 hours required for the minor:
   IT 250, 344, 350, 431, 441.
   Additionally IT 310, 327, 347 are available as electives if not taken under requirement 3 above.

Note: Some of the above courses also have prerequisites, which the student must either take or satisfy in another manner. The main prerequisites are IT 104 (or equivalent) and a programming language, preferably C, C++, or Java (CS 142).

Information Technology (IT)

Undergraduate Courses

101. Cornerstone: Information Technology. (2:1:3) F
Planning and preparing for a successful career in electronics and information technology. Developing skills with computers, problem solving, studying, and time management. Comparing information technology to computer science, computer engineering, and master of information systems careers.

104. Digital Electronics Foundations. (4:3:3) F, Sp Prerequisite: Math 111 or equivalent.
AC and DC electronics, digital fundamentals, and circuits. Ohm's law and power; impedances and frequency effects; AC wave forms; numbering systems; boolean systems, combinational and sequential logic; spectral analysis. Fee.

150. Computer Systems. (3:2:3) W Prerequisite: IT 104.
Principles of computer software and hardware, including peripherals and A/D. Implementing simple computer CPU in digital logic. Assembly language. Effects of computer systems on human lives. Fee.

198R. Directed Studies in Information Technology. (2:2:2 ea.) F, W
Introductory course. Special topics in problem-solving and technology careers.

199R. Academic Internship: Information Technology. (1–3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: consent of both department chair and cooperative education coordinator.
Work experience evaluated by supervisor and posted on student's transcript.

210. Fundamentals of Web-Based Information Technology. (4:3:3) F, Sp Prerequisite: CS 142.
Web technologies, including operating systems, networking, database concepts, and tools from a Web development and infrastructure management perspective. Web systems integration and development projects.

240. System Controllers. (3:2:3) F, W Prerequisite: IT 150.
State machine and system controller design, registers, memories, microprocessors, and microcomputers. Fee.

241. Computer System Organization. (3:2:3) W, Sp Prerequisite: CS 142; Stat 361 or concurrent enrollment.
Programming and analyzing computer systems hardware/OS. Performance evaluation. System architectures, CPUs, cache, memory, assembly language programming, BIOS and OS issues, peripherals.

291R. Undergraduate Seminar. (0.5:1:0 ea.) F, W, Sp
Required of all freshman and sophomore electronics engineering technology students each semester. College Lecture and Technology Department Lecture attendance required.

304. Devices and Circuits in Information Technology. (3:2:3) W Prerequisite: IT 104.
Electronic building blocks for information technology systems. Includes p-n junctions, diodes and transistors, op-amps, oscillators and phase lock loops, and analog integrated circuits. Course enhances IT 327.

314. Industrial Electronics. (3:2:3) F Prerequisite: Math 112, Phscs 121.
Industrial electrical and electronic devices and circuits, including solenoids, relays, motors, and test equipment. Computers, digital communications, and networking.

327. Digital Communications. (3:2:3) F, Sp Prerequisite: IT 104, Phscs 123; acceptance to professional program.
Communication systems, wired and wireless. Bandwidth, modulation; Shannon's theorem, telecommunications. Network physical and data link layers (ISO/OSI model). Optics/Coax/Twisted pair; RS 232/Ethernet, Signals/Protocols/Packets; digital communication theory fundamentals.

328. Physical Design of Information Technology Products. (3:2:3) W Prerequisite: IT 104 or 314; Phscs 123 or 105; Phscs 107.
Modern physical design of IT devices and products, including desktop and laptop computers, hubs, routers, PDAs, cell phones, etc. Producing a working prototype of a circuit of choice: its enclosure and technical manual, a computer-aided design of a printed circuit board, troubleshooting, breadboard work. Concepts of reliability, including derating, heat, vibration, moisture, and dust. Fee.

344. Operating Systems. (3:2:3) W Prerequisite: CS 235, IT 210, 241; or instructor's consent; admission to IT professional program.
Applying and using computer operating systems. Configuration, file systems, security, administration, network interfacing, multitasking, multiuser, device driver installation. Analyzing operating system performance. Fee.

346. Integrated Audio/Video Systems. (3:2:3) F alt. yr. Prerequisite: IT 104.
Information technology audio and video components and systems used in home, industry, and education. System design, integration, and automation. Recent digital formats for broadcasting and recording.

347. Computer Networks. (3:2:3) W Prerequisite: IT 210; acceptance to professional program.
Computer networks. Local and wide-area networking for enterprises and service providers. Work groups/routers/hubs/switches; network server administration; Internet protocols and routing; security and privacy. Fee.

350. Database Principles and Applications. (3:2:3) W Prerequisite: CS 235; IT 210; acceptance to professional program.
Database theory and architecture; data modeling; designing application databases. Query languages, data security, database applications on the Web.

355. Human-Computer Interface. (3:2:4) F, Sp Prerequisite: IT 210.
Interface design emphasizing human factors, performance analysis, and cognitive processing. Team-based projects include task analysis, usability studies, environment, interaction, training, and documentation procedures.

391R. Junior/Senior Seminar. (0.5:1:0 ea.) F, W, Sp
Required four times during junior/senior years while in professional program. College Lecture and School of Technology Lecture attendance required.

399R. Academic Internship: Information Technology. (1–6:0:0 ea.) F, W, Sp, Su Prerequisite: consent of both department chair and cooperative education coordinator.
Experience in industrial environment. Approved job function supervised by employer and electronics and information technology advisor. Formal technical report required.

421. Control Systems. (3:2:3) F Prerequisite: IT 327.
Analog and digital control of position, temperature, velocity, or other external variables, Laplace and Z transforms, first- and second-order systems, feedback, and transfer functions. Systems design.

431. Digital Signal Processing. (3:2:3) W Prerequisite: Math 113, CS 142, IT 241.
Processing engineering data using digital computers. Encoding data for storage or transmission. Frequency-domain techniques for improving signal filtering. Cryptography and other important signals algorithms. Practical experience with DSP processors.

441. Embedded Computer Systems. (3:2:3) F Prerequisite: IT 344.
Real-time embedded systems development using microprocessors and microcontrollers. Multitasking, hardware/software interfacing, operating systems, and various CPU architectures.

443. Broadband Communications. (3:2:3) Sp Prerequisite: IT 327.
Physical-layer communications over broadband media. Optical and radio frequency propagation and devices. Fiber optics. Fee.

444. Instrumentation and Computers. (3:2:3) W Prerequisite: IT 241, 344.
Design and application of sensors, transducers, and instrumentation. Computer interfacing. Software design for instrumentation. Applications in industrial automation and in embedded systems.

446. Senior Project/Capstone 1. (2:2:0) Prerequisite: all required 300-level information technology courses; Engl 316.
IT senior project proposal and feasibility studies. Project management, teamwork principles, intellectual property, supplier interactions, identifying and using professional technical literature, oral and written presentations.

447. Senior Projects/Capstone 2. (3:1:5) W Prerequisite: IT 446.
Senior project design and intergration. Second class of two-course sequence. Implementing design. Project management, teamwork, and presentations. Fee.

461R. Current Topics in Information Technology. (3:2:3 ea.) Prerequisite: instructor's consent.
In-depth analysis of current growth areas in information technology. Detailed discussion and lab experience of a few topics from faculty working in the field.

492R. Special Problems in Information Technology. (1–3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: information technology senior standing, Engl 316, and an approved project proposal.
Individual study in research and design related to computer-aided process control.

500-Level Graduate Courses (avaliable to advanced undergraduates)

529. Advanced Networking. (3:2:3) F Prerequisite: IT 344, 347; or equivalents.
Analyzing, selecting, configuring, monitoring, and managing computer network equipment. SNMP-based monitoring and control in process of fault isolation and root cause analysis.

540. Computer-Aided Testing. (3:2:2) F alt. yr. Prerequisite: instructor's consent.
Applying distributed intelligence to testing. Instrumentation bus standards, IEEE 488, fieldbus, and others. Advanced instrumentation.

548. Mechatronics. (3:2:3) F Prerequisite: IT 444 or instructor's consent.

Synergistic application of mechanical devices, electronic controls, and system principles in design of products and manufacturing processes. Advanced applications of electronic instrumentation, control, and automation in manufacturing systems.

Manufacturing Engineering Technology

Charles Harrell, Chair
265 CTB, (801) 422-6300

Admission to Degree Program

Admission to the manufacturing engineering technology preprofessional program is open to all BYU students. Students may then apply for the professional program upon completion of required prerequisite courses. Application deadlines are June 1 for fall semester, October 1 for winter semester, and February 1 for spring term. See The School of Technology advisor (170 SNLB) for further information.

The Discipline

Manufacturing is an exciting and rewarding discipline that has significant impact on a society's standard of living and economic independence. At BYU the manufacturing program is specifically oriented toward creating leaders in the industry.

Students in manufacturing learn creative and analytical skills that will enable them to quickly diagnose and solve manufacturing problems with insight from both engineering and management perspectives. They also develop interpersonal and communication skills that will prepare them to work as part of an engineering team and effectively interact with vendors, management, and production personnel. In addition, they receive hands-on training in modern lab facilities and learn to use computers to design, analyze, implement, and control manufacturing operations.

There is an increasing demand for manufacturing professionals who are knowledgeable and skilled in the management, methods, technologies, equipment, and tooling needed to produce quality and affordable products. Such individuals must also be able to effectively coordinate the procurement, installation, and start-up of production operations as well as improve the productivity of existing operations. Few professions encompass such a broad range of activities and utilize so many skills.

The manufacturing engineering technology program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700. The program provides students with the option of pursuing either a management track (which confers a minor in business management) or a process track. Students may take their electives in either track to obtain the balance they desire for their career. Graduates may further their technical and managerial skills by pursuing either a master of science in technology or a master of business administration.

Career Opportunities

Career opportunities in manufacturing are plentiful and rewarding. Leaders of industry often have manufacturing backgrounds. Typical entry-level job titles include manufacturing engineer, quality manager, process engineer, tool engineer, product engineer, quality engineer, and production supervisor. New graduates are typically hired into technical positions but have the opportunity to move into management.

The job outlook for manufacturing graduates is bright and should continue to be strong into the future. When one considers that everything that does not exist as part of nature is the product of some form of manufacturing, it is easy to see that manufacturing is an integral part of our society and generates an ever-growing workforce. Progressive companies in industries worldwide are always on the lookout for qualified individuals who can provide leadership in improving the quality and productivity of their manufacturing operations.

General Information

The manufacturing program is designed to provide simple transfer from local feeder schools, including BYU—Idaho, Salt Lake Community College (SLCC), and Utah Valley State College (UVSC). Students transferring from these or other schools should meet with college and program advisors as soon as possible to evaluate transfer credits and plan the student's BYU curriculum.

BS Manufacturing Engineering Technology

(79–80 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the School of Technology advisor for information regarding requirements for admission to this major.

Major Requirements

1. Students must have a minimum of 124 total hours to graduate with this major.
2. Complete the following preprofessional requirements with a grade of C– or better in each course:
   CEEn 103.
   Math 112.
   Mfg 130.
3. Complete one of the following options:
   Either Phscs 105, 107
   Or Phscs 121.
4. Complete the following supporting courses:
   CEEn 203.
   Chem 105.
   Econ 110.
   Engl 316.
   MeEn 172, 250.
   RelC 492 (2 hours required).
   Stat 361.
5. Complete the following manufacturing core courses:
   Mfg 340, 355, 391R, 431, 434, 475, 476, 480.
6. Complete 3 hours of the following:
   Mfg 399R.
7. Complete one of the following tracks:
   a. Management track: Complete the following:
      Acc 200.
      BusM 300, 340.
      Mfg 479.
      OrgB 320.
      TTE 229.
   b. Process track: Complete the following:
      IT 314, 328.
      Mfg 220, 230, 324, 331.

*Hours include courses that may fulfill GE or university requirements.

Minor Manufacturing (15 hours)

Minor Requirements

1. Complete the following:
   Mfg 130, 340, 480.

2. Complete two courses from the following:
Mfg 220, 230, 324. 331, 355.

Manufacturing Engineering Technology (Mfg)

Undergraduate Courses

130. Modern Manufacturing. (3:2:3) F
Modern manufacturing methods and processes. Characteristics of successful manufacturing engineers and managers. Lab includes demonstrations of manufacturing processes and visits to manufacturing plants.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department chair's or cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

201. History of Creativity in the Arts, Science, and Technology 1. (3:3:0) F
Western civilization from Greek antiquity to Renaissance from perspective of changes in civilization enabled by technology. Creativity throughout history. How to improve personal creativity.

202. History of Creativity in the Arts, Science, and Technology 2. (3:3:0) W
Western civilization from Renaissance to present from perspective of changes in civilization enabled by technology. Creativity throughout history. How to improve personal creativity.

220. Material Removal. (3:2:3) F, Sp
Methods and procedures to shape materials using basic machine tools; cutting theory, tool selection, metrology methods, and machine operation. Introduction to computer numerical control.

230. Computer-Aided Manufacturing. (3:2:3) W Prerequisite: Mfg 220, Math 111, MeEn 172.
Manual and computer-assisted programming of computer numerical controlled (CNC) equipment. Developing CNC programs to manufacture parts for high production.

324. Joining Processes. (3:2:4) W, Su Prerequisite: CEEn 203, MeEn 250.
Theory, application, and economics of various joining processes; welding, soldering, riveting, threaded fasteners, adhesives, mechanical assembly tools and techniques.

331. Metal-Shaping Processes. (3:2:3) F, Sp alt. yr. Prerequisite: MeEn 172, 250, Mfg 220, CEEn 203.
Capabilities and applications of common metal-shaping processes, including relationships between part design, material, and process parameters.

340. Quality Systems in Manufacturing. (3:2:3) F, Sp Prerequisite: Stat 361.
Tools and principles of quality in manufacturing systems. Basic tools, variation, loss function, cost of quality, SPC, DOE, FMEA, and QFD. Comprehensive project in system design to improve quality.

355. Plastics Materials and Processing. (3:2:3) F Prerequisite: MeEn 250 or instructor's consent.
Understanding plastic materials, properties, and uses. Survey of plastic-manufacturing processes. Designing plastic products and manufacturing systems.

391R. Professional Seminar. (1:1:0 ea.) W
Lectures on personal and professional development.

399R. Academic Internship: Manufacturing Practicum. (1–6:0:0 ea.) F, W, Sp, Su Prerequisite: second-semester junior standing, Mfg 391R, and faculty authorization.
Working in teams to solve problems encountered in local industry. Project management and reporting under guidance of industry supervisor and department faculty.

431. Tool Design. (3:2:3) F, Sp alt. year Prerequisite: MeEn 172, Math 112; senior standing.
Designing special tooling for manufacturing processes using solids-modeling design systems.

434. Introduction to Manufacturing Automation. (3:2:2) W Prerequisite: Phscs 105, CEEn 103, Mfg 340.
Sensors, actuators, robotics, part feeding and assembly, PLCs, pneumatic and hydraulic control, justifying automation.

460. Production Management. (3:3:0) F Prerequisite: Mfg 340.
Functions of production management, including planning, scheduling, inventory management, constraint theory, design and flow of manufacturing information, and delivery of product to customer.

475, 476. (Mfg-MeEn) Integrated Product and Process Design 1, 2. (3:2:3 ea.) F, W Prerequisite: senior standing (fewer than 30 hours remaining in the program).
Comprehensive two-semester design experience from conception to manufacturing planning and prototype. Product development process. Economic and manufacturing considerations. Intellectual property assignment agreement required.

479. (Mfg-BusM) Creating and Managing New Ventures. (3:3:0) Prerequisite for management majors: BusM 301, 341, 361; major status. For engineering majors: management minor status; senior status.
Key issues and problems facing managers in start-up companies. Team-taught by professors and entrepreneurs; particularly helpful for students starting businesses.

480. Process Planning and Systems Design. (3:3:0) W, Su Prerequisite: Mfg 340.
Analyzing product specifications and production requirements for manufacturing. Equipment selection and justification; facility layout and material-handling system design; process-improvement techniques.

490R. Special Problems in Manufacturing Engineering Technology. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

531. Advanced Computer-Aided Manufacturing Programming. (3:2:3) Sp Prerequisite: previous introductory computer-aided manufacturing programming; senior or graduate status or instructor's consent.
CAD/CAM programming techniques and requirements for manufacturing components on computer numerical-control machine tools, emphasizing CAM programming, postprocessors, and CAM software evaluation.

532. Manufacturing Systems. (3:2:2) F Prerequisite: Mfg 480 or instructor's consent.
Analyzing lean manufacturing systems. Numerous examples and case studies from industry demonstrating principles of lean production, inventory management, and lean distribution. Project with a local company to gain confidence with these principles in an industrial setting.

533. Manufacturing Information Systems. (3:2:3) W Prerequisite: Mfg 480 or instructor's consent.
Applying and integrating software and information technologies in planning, executing, and monitoring production operations.

555. Composite Materials and Processes. (3:2:3) Su Prerequisite: graduate standing or instructor's consent.
Structure, processing, properties, and uses of composite materials, including various manufacturing methods and the relationship between properties and fabrication.

572. Design for Manufacturing. (3:2:2) W Prerequisite: graduate standing or instructor's consent.
Introduction to design evaluation techniques, including design for mechanical assembly, printed circuit board assembly, plastic injection molding, machining, and sheet metal fabrication.

574. Advanced Tool Design. (3:2:3) W Prerequisite: instructor's consent.
Advanced design of net-shape products utilizing CAD and CAE methods. Plastic injection mold design and construction. Rapid prototyping and injection molding project.

580. Manufacturing Simulation. (3:3:0) F Prerequisite: Mfg 480.
Design and optimization of manufacturing systems using simulation. Simulation languages and modeling methodology.

Graduate Courses

For 600-level courses, see the BYU 2003–2004 Graduate Catalog.

Technology Teacher Education

Steven Shumway, Chair
230 SNLB, (801) 422-6496

Admission to Degree Program

All technology teacher education degree programs are open enrollment programs. Please see the college advisement center for specific details.

The Discipline

Upon completion of the technology education program, students will be prepared to teach technological literacy skills at the secondary and postsecondary levels. The curriculum contains hands-on innovative technologies such as lasers, fiber optics, robotics, fluid power, Web authoring, electronic publishing, video production, multimedia design, and a variety of other applications.
The dramatic pace of technological innovation makes this a vital major—one that aims to improve the rising generation's technological literacy and increase their awareness of technology's impacts upon individuals, society, and the environment.

Career Opportunities

The program prepares technology teachers for junior high/middle schools, high schools, and post-high-school programs. Additional education is required to prepare for teaching in a college or university. The request for teachers is far greater than the available graduates, so the technology teacher has excellent opportunities for job placement.

BS Technology Teacher Education (75–77 hours*, including licensure hours)

Major Requirements

1. Complete the following:
   InDes 133, 214R.
   TTE 101, 125, 225, 229, 255, 330, 340.
2. After consulting with a faculty advisor, complete 16 hours of approved technical emphasis electives in the general areas of visual communication, design and engineering, or production.

   Note: Those students preparing to teach high school should complete 16 hours of technical emphasis in one or a combination of two depth electives (i.e., information technology, electronics, etc.).

   Trade and Technical (T&T) licensure is issued through the Utah State Office of Education. See the USOE application for compliance with the T&T requirements.
3. Complete four registrations of the following:
   TTE 291R.
4. Complete one course from the following:
   Math 110, 111.
5. Complete the following:
   TTE 377, 465.
6. Complete professional education requirements (23–24 hours). See Secondary Education in the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

Technology Teacher Education (TTE)

Undergraduate Courses

101. Teaching Technology. (3:2:4) F
The technology education profession: technological literacy standards and teaching practices through classroom activities and experiences in public schools.

125. Technological Systems 1. (3:2:4) F
Teaching communication, information, biological, medical, and environmental systems, with a focus on such communications technologies as networking, printing, Web design, digital photography, video, and animation.

140. Power/Energy/Transportation Systems. (2:1:3)
Theory and applications of energy sources: solar, wind, water, photovoltaic, pneumatic, and mechanical systems. Economic and environmental impacts. Applications to transportation systems. Fee.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

200. Fundamentals of Woodworking Design and Processes. (3:2:4) F, W
Using hand and machine woodworking tools; sawing, joining, fitting, and fastening. Designing, planning, building, and finishing small piece of custom furniture. Fee.

209. Fundamentals of Electronics Technology. (3:2:4) F Independent Study also.
Theory of electricity and electronics; magnetism, DC/AC circuits, semiconductors, and introduction to digital processes for automated systems. Technical reports of lab activities. Fee.

225. Technological Systems 2. (3:2:4) W
Teaching electronic, construction, and transportation systems.

229. Material Properties and Processes. (3:2:4) F
Solving real-world problems through layout, measurement, material properties, forming, molding, cutting, fastening, joining, finishing, and fabricating with wood, metal, plastic, and concrete. Fee.

251. Video Production and Nonlinear Editing. (3:2:4) F Prerequisite: TTE 125, 255; or instructor's consent.
Teaching video in education to inspire, communicate, and develop creativity. Fundamentals include planning, storyboarding, camera techniques, composition, assembling, and editing video projects.

255. Visual Communication Design. (3:2:4) W Prerequisite: TTE 125 or instructor's consent.
Teaching visual design principles in education. Fundamental skills in digital photo manipulation and illustration for print and World Wide Web.

291R. Undergraduate Seminar. (0.5:1:0 ea.) F, W
Student leadership training, including organizing and operating student technology education clubs. Required each semester except when enrolled in ScEd 476R. College Lecture attendance required.

300. Advanced Wood Processes. (3:2:4) W alt. yr. Prerequisite: TTE 200.
Applying woodworking processes. Processing green wood, wood turning, veneering, bending, carving, and laminating. Designing and constructing small wood projects. Fee.

330. Creativity, Engineering, and Problem Solving. (3:2:4) W Prerequisite: TTE 125, 225, 229; or instructor's consent.
Designing solutions to technological problems using innovation, creativity, experimentation, problem solving, and engineering design. Manufacturing systems; teaching methods and prototype development.

340. Power and Energy Systems. (3:2:4) F Prerequisite: TTE 225.
Teaching about power and energy systems. Practical applications of scientific and mathematic concepts that include measuring and calculating mechanical, fluid, electrical, and thermal systems.

350. Multimedia Authoring and Publishing. (3:2:4) W
Developing advanced media authoring skills for teaching interactive design. Solving real-world interactive design problems for the World Wide Web, CD-ROM, and DVD-ROM in an entrepreneurial environment.

377. Instructional Methods for Technology Education. (2:2:0) W Prerequisite: ScEd 276R.
Teaching methods and instructional strategies, with particular emphasis on activity-oriented approaches.

450. Desktop Publishing. (3:2:3) F, W, Sp
Electronic publishing for print communications: typography, resolution, design, printing, scanning, layout, photo editing, illustration, and prepress readiness. Fee.

465. Curriculum Development in Technology Education. (3:3:1) F Prerequisite: TTE 337.
Developing curriculum, including teaching aids, lab activities, student projects, and exercises related to teaching technology.

490R. Independent Research and Development. (1–3:1:Arr. ea.) F, W, Sp, Su Prerequisite: program supervisor's consent.
Individually preparing technical content associated with selected technological emphases. Fee.

500-Level Graduate Courses (available to advanced undergraduates)

550. Distance Learning. (2:4:0) Su
Developing distance learning environments with multimedia, streaming media, course management systems, and other digital media founded on the principles of "how people learn."

593R. Workshop in Applied Technology Education. (1–2:Arr.:Arr. ea.) F, W, Sp, Su
Teaching and learning technological literacy skills. Reviewing and participating in current technological advances, with a focus on teaching practice and methods. Maximum of 2 credit hours applicable to MS program. Fee.

Graduate Courses

For 600-level courses, see the BYU 2003–2004 Graduate Catalog.

School of Technology Faculty

Professors
Christensen, Kip W. (1988) BS, MS, Brigham Young U., 1980, 1982; PhD, Colorado State U., 1991.
Erekson, Thomas L. (1998) BS, Northern Illinois U., 1974; MEd, EdD, U. of Illinois, 1974, 1979.
Gonzales, Ronald F. (1977) BA, MA, California State U., Los Angeles, 1972, 1975; PhD, Purdue U., 1982.
Marshall, John F. (1971) BFA, MA, Brigham Young U., 1966, 1968.
Newitt, Jay S. (1976) BS, MIE, Brigham Young U., 1969, 1972; PhD, Colorado State U., 1980.
Rogers, Leon R. (1981) BS, Utah State U., 1978; BS, Weber State U., 1978; MS, Colorado State U., 1981; PhD, Texas A&M U., 1989.
Strong, A. Brent (1986) BA, PhD, U. of Utah, 1967, 1971.

Associate Professors
Adams, R. Brent (1990) BUS, MFA, U. of Utah, 1992, 1992.
Burr, Kevin (1999) BS, MEd, U. of Nevada, Las Vegas, 1988, 1990; EdD, Oklahoma State U., 1997.
Christofferson, Jay P. (1992) BS, MS, Brigham Young U., 1980, 1992; PhD, Colorado State U., 1996.
Ekstrom, Joseph J. (2001) BS, MS, PhD, Brigham Young U., 1974, 1976, 1991.
Harrell, Charles R. (1982) BS, Brigham Young U., 1976; MS, U. of Utah, 1982; PhD, U. of Denmark, 1988.
Hawks, Val D. (1985) BS, Brigham Young U., 1980; MS, Lehigh U., 1986.
Helps, C. Richard (1986) BSc (Eng.), MSc (Eng.), Witwatersrand, South Africa, 1978, 1986.
Kohkonen, Kent E. (1970) BS, MS, Brigham Young U., 1968, 1976.
Lunt, Barry M. (1992) BS, MS, Brigham Young U., 1978, 1979; PhD, Utah State U., 1993.

Assistant Professors
Bailey, Michael G. (2001) BS, Brigham Young U., 1985; MS, U. of Southern California, 1987; PhD, Florida Inst. of Technology, 2000.
Campbell, Jeffery L. (1997) BS, Brigham Young U., 1984; MBA, U. of Phoenix, 1990; PhD, U. of Idaho, 1999.
Carter, Perry W. (1980) BS, MS, Brigham Young U., 1973, 1974; PhD, U. of Massachusetts, 1988.
Fry, Richard E. (2000) BFA, Brigham Young U., 1989; MFA, U. of Illinois, 1994.
Miles, Michael P. (2001) BS, U. of Idaho, 1989; MS, Ohio State U., 1991; PhD, Ecole des Mines de Paris, 1995.
Miller, Kevin R. (2001) BS, Brigham Young U., 1991; MA, U. of Phoenix, 1995; PhD, Arizona State U., 2001.
Shumway, Steven L. (1993) BS, Brigham Young U., 1987; MS, PhD, Utah State U., 1993, 1999.

Instructors
Barrett, Jared V. (2001) BS, MS, Brigham Young U., 1996, 1999.
Chelson, Douglas E. (2001) BS, Brigham Young U., 1999; MBA, U. of Oregon, 2001.
Hutchings, D. Mark (1992) BA, Brigham Young U., 1977; MS, U. of Denver, 1992.
Renshaw, Stephen R. (2000) BS, MS, Brigham Young U., 1985, 1987.

Emeriti
Allen, Dell K. (1960) BS, Utah State U., 1954; MS, Brigham Young U., 1966; EdD, Utah State U., 1973.
Gheen, W. Lloyd (1978) BS, Brigham Young U., 1963; MEd, EdD, Texas A&M U., 1969, 1970.
Grover, Jerry D. (1968) BS, MEd, Utah State U., 1956, 1961; EdD, Brigham Young U., 1968.
Hill, Garth A. (1972) BS, MS, Brigham Young U., 1959, 1969; PhD, Colorado State U., 1979.
Hinckley, Edwin C. (1963) BS, MS, Oregon State U., 1950, 1956; EdD, Colorado State Coll., 1963.
Holt, Ivin L. (1963) BS, Brigham Young U., 1957; MEd, Pennsylvania State U., 1958; EdD, Arizona State U., 1972.
Johnson, A. Kent (1991) BSEE, Brigham Young U., 1960: MSEE, New York U., 1962; DSc, Steven Inst. of Technology, 1965.

Jenkins, Ronda H. (1949) BS, MA, Brigham Young U., 1955, 1966.
Martin, Loren (1982) BS, Brigham Young U., 1965; MS, Stout State U., 1966; EdD, Utah State U., 1973.
Mather, C. Glayd (1974) BS, MS, Utah State U., 1964, 1965.
McArthur, Ross J. (1956) AS, Dixie Coll., 1943; BS, MS, Utah State U., 1949, 1953; EdD, U. of Missouri, Columbia, 1955.
McKell, William E. (1970) BS, Utah State U., 1948; MEd, Texas A&M U., 1951; EdD, Utah State U., 1970.
Nish, Dale L. (1967) BS, MS, Brigham Young U., 1957, 1958; EdD, Washington State U., 1967.
Owen, Earl F. (1982) BS, MS, U. of Utah, 1970, 1972.
Smart, Merrill J. (1967) BS, Brigham Young U., 1959; MS, U. of Utah, 1962.
Stout, W. Douglas (1969) BFA, U. of Utah, 1958; MS, Illinois Inst. of Technology, 1961; PhD, U. of Utah, 1977.
Tolman, Wilford J. (1960) BS, MS, Brigham Young U., 1960, 1964.

Thai

See Center for Language Studies.

Theatre and Media Arts

Bob Nelson, Chair
D-581 HFAC, (801) 422-6645

E-mail: tmadepartment@byu.edu
Internet: http://cfac.byu.edu/tma/

College of Fine Arts and Communications Advisement Center
D-444 HFAC, (801) 422-3777

Admission to Degree Program

The degree programs in the Department of Theatre and Media Arts carry special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

The study of theatre and media arts is truly a study of humankind and our attitudes toward ourselves as revealed in artistic expression. Since art is a mirror of human society, the specific disciplines of theatre and media arts cover our innermost attempts at comprehending our existence through all time.

The BYU theatre program is designed to educate the student in a basic foundation of dramatic literature, theatre history, theory, performance skills as both actor and director, and techniques in all areas of theatre design technology and production.

The BYU media arts program is designed to educate the student in a basic foundation of film history, theory, and criticism along with the fundamental production competencies in film, television, animation, or interactive multimedia.

Career Opportunities

The theatre program provides training and experience in all areas of theatre, from performing to playwriting, from teaching to technical production.

The media arts program provides a foundation and basic experience in analyzing, conceptualizing, writing, directing, and collaboratively producing nonfiction, narrative, and interactive media. For skill development and specialization, students may select an area of study from the following: critical studies; film, documentary, or television and radio producing and directing; screenwriting; or interactive multimedia. For an area of interest study list, contact the advisement center or the department office.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion	14.0
Residency	30.0
Hours needed to graduate	120.0

Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Media Arts Studies
BA	Theatre Arts Education
BA	Theatre Arts Studies
BFA	Acting
BFA	Music Dance Theatre
Minors	Media Arts Studies
	Theatre Arts Education
	Theatre Studies

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Theatre and Media Arts
MFA	Production Design

For more information see the BYU 2003–2004 Graduate Catalog.

Animation—Additional Degree Program Offered

A BFA in animation is currently being offered as an interdisciplinary degree by the College of Fine Arts and Communications through the cooperative involvement of its Department of Theatre and Media Arts, its Department of Visual Arts, and the College of Engineering and Technology's School of Technology. Please see the Visual Arts section of this catalog for degree requirements or go to the College of Fine Arts and Communications Advisement Center for more information about entrance requirements to this program.

General Information

1. All students (with the exception of MDT majors—see MDT major requirements below) should register as a pre-theatre or pre–media arts major.
2. Upon completion of the pre-theatre or pre–media arts requirements, application must be made for entrance into the chosen degree program.
3. Specific application information and application forms for each major are available from the department office, D-581 HFAC, or the advisement center, D-444 HFAC.
4. No C credit is allowed in premajor courses.

BA Media Arts Studies (49–52 hours*)

This program has minimum criteria that students are required to meet for admission. Please see the college advisement center for information.

The media arts studies major is designed to foster disciplined scholars and artists, committed to the gospel of Jesus Christ, whose skills and conduct are models of leadership, inspiration, and achievement. This degree is designed to produce graduates with practical skills, intellectual attributes, and spiritual awareness to assist themselves, their families, and others in "their quest for perfection and eternal life."

Students complete the media core and then select an area of study for the development of fundamental skills in critical studies; film (narrative), documentary, and television and radio producing and directing; screenwriting; or interactive multimedia. (BFA animation requirements are listed in the Visual Arts and Design section of this catalog.) For an area of study list, contact the advisement center or the department office.

Major Requirements

1. Complete the following pre–media arts courses with a B grade or better:
   TMA 102, 112.
2. Be admitted to the program by application. (See the department office, D-581 HFAC.)
3. Complete the following foundation courses:
   TMA 114, 185.
4. Complete one foundation course from the following:
   TMA 123, 236.
5. Complete the following media arts core courses:
   TMA 291, 292, 293, 391.
6. Complete one of the following advanced critical studies courses:
   TMA 477R, 492R, 494, 497, 498R.
7. Complete 21–23 hours (14 must be upper-division) from faculty advisor-approved courses in an area of study. These areas of study must be approved in writing by the student's faculty advisor before enrollment occurs. Please contact the department for possible study areas. Up to 8 hours of practica can be used to fill this requirement.

*Hours include courses that may fulfill GE or university requirements.

BA Theatre Arts Education (74–75 hours*, including licensure hours)

This program has minimum criteria that students are required to meet for admission. Please see the college advisement center for information.

The theatre arts education degree program is designed to prepare students to become creative teachers who can meet the educational needs of secondary school theatre students. The skills the program emphasizes include, but are not limited to, interpersonal communication, social, life, acting, directing, writing, historical/analytical, and design/production skills. In addition to developing highly skilled educators, the program is designed to develop strong directing and production skills in each prospective high school teacher.

Major Requirements

1. A teaching minor is not required for licensure. However, it is strongly recommended.
2. No D credit will be accepted for major courses.

3. Complete the following pre-theatre courses with a B grade or better:
   TMA 101 or 102; 160; 112.

   Note: TMA 102 is strongly recommended to enhance media literacy.
4. Be admitted to the major program by application (see the department office, D-581 HFAC).
5. Complete the following foundation course:
   TMA 114, 123, 236.
6. Complete the following theatre core courses:
   TMA 201, 202, 260R, 360R, 395, 396.
7. Complete the following major courses:
   TMA 266, 267, 268, 336, 368, 436, 453.
8. Complete 6 hours from the following or other faculty advisor-approved courses:
   TMA 121, 124, 222, 225, 229, 324, 325, 361, 424, 457.
9. Complete the Professional Education Component (25–26 hours). See the Teacher Education section of this catalog for licensure requirements.

*Hours include courses that may fulfill GE or university requirements.

BA Theatre Arts Studies (50 hours*)

This program has minimum criteria that students are required to meet for admission. Please see the college advisement center for information.

The theatre arts studies major emphasizes primarily a liberal arts approach. The program is designed to foster disciplined scholars and artists who so excel in their personal conduct and professional skill that they are sought as models of leadership, inspiration, and achievement. Graduates of this program should be capable of producing work that delights, edifies, and enlarges the human spirit.

Major Requirements

1. Complete the following pre-theatre courses with a B grade or better:
   TMA 101 or 102; 160; 112.
2. Be admitted to the program by application. (See the department office, D-581 HFAC.)
3. Complete the following foundation courses:
   TMA 114, 123, 236.
4. Complete the following theatre core courses:
   TMA 201, 202, 260R, 360R, 395, 396.
5. Complete 23 hours (15 must be upper-division) in consultation with the faculty mentor. These individually tailored programs will allow the student maximum flexibility while guaranteeing quality control.

*Hours include courses that may fulfill GE or university requirements.

BFA Acting (79.5–80 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this program.

The acting degree program was developed for students who are committed to acting as a career. It is focused to better prepare them to compete professionally and/or for admission to advanced acting conservatory programs or graduate work.

Major Requirements

1. Successfully pass a preliminary audition and a final acceptance audition. These auditions are held at the end of each fall and winter semester.
2. Complete the following pre-theatre courses with a B grade or better:
   TMA 101 or 102; 160; 112.
3. Complete the following foundation courses:
   TMA 114, 123, 236.
4. Complete the following core courses:
   TMA 201, 202, 260R, 360R, 395, 396.
5. Complete the following major courses:
   Acting:
   TMA 124, 223, 224, 229, 324, 424, 427.
   Voice:
   Music 161.
   TMA 122, 222, 322, 422.
   Movement:
   Dance 140 or 240.
   TMA 125, 127, 225, 325.
   Support skills:
   TMA 267.
   Performance:
   TMA 399R or 496R (1 hour minimum); 410R (1 hour minimum).
6. Complete 12 hours from the following or other approved courses:
   TMA 102, 185, 220R, 241, 251, 315R, 329, 336, 341, 351, 367, 420R, 423, 425, 429, 436, 443R.

* Hours include courses that may fulfill GE or university requirements.

BFA Music Dance Theatre (74.5 hours*)

This is a limited-enrollment program requiring program admissions approval. Please see the College of Fine Arts and Communications Advisement Center for information regarding requirements for admission to this major.

The BFA in music dance theatre (MDT) is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of its School of Music and Department of Theatre and Media Arts and the College of Health and Human Performance's Department of Dance.

Major Requirements

1. Live and taped auditions for entrance into the MDT major are held in the January preceding fall registration. Students may begin the MDT major in the fall only.
2. Pass a proficiency examination in each of the three areas at the end of each semester.
3. Complete at least 40 hours in residence at BYU.
4. Any grade below C– in major courses is not acceptable for graduation. Dance technique courses require a grade of B– for advancement to the next level.
5. Complete the following:
   Music 113, 161, 261, 290.
6. Complete 4 hours of the following:
   Music 260R.
7. Complete 4 hours of the following:
   Music 360R.
8. Complete the following:
   Dance 131, 135, 231, 235, 241R, 243R, 244R, 290, 291R, 331, 361, 363, 390R.

9. Complete the following:
   TMA 114, 121, 123, 124, 229, 267, 427.
10. Complete the following MDT Seminar courses:
    Music 328.
    Dance 328.
    TMA 328.
11. Complete the following History of Music Dance Theatre courses:
    Music 300.
    Dance 300.
    TMA 300.
12. Complete the following Senior Performance Project courses:
    Music 426.
    Dance 426.
    TMA 426.
13. Complete 11.5 hours of electives from the following music, dance, or theatre courses.
    Music 186, 319R, 360R, 363, 386R, 399R, 402A,B, 472.
    Dance 331, 340R, 362, 368R, 390R, 391R, 393R, 399R, 429R, 440R, 462, 468R, 490R, 493R, 494R, 495R, 498R, 540R, 562R, 563R.
    TMA 100, 215R, 223, 224, 225, 236, 322, 324, 325, 329, 336, 399R, 420R, 422, 424, 425, 429 443R, 515R.

*Hours include courses that may fulfill GE or university requirements.

Minor Media Arts Studies (23 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this minor.

Minor Requirements

1. Complete the following with a B grade or better:
   TMA 102, 112.
2. Be admitted to the minor program by application (see department office, D-581 HFAC).
3. Upon acceptance into the minor program, complete the following:
   TMA 114, 185.
4. Complete one course from the following:
   TMA 123, 236.
5. Complete one course from the following:
   TMA 291, 292.
6. Complete 3 hours from the following advanced critical studies courses:
   TMA 477R, 492R, 494, 497, 498R.
7. Complete 4 hours of electives from the following:
   TMA 271, 274, 277R, 293, 295, 370R, 384R, 387, 391, 392, 492R, 494, 497, 498R (these 400-level courses may not be used if taken to fill item 6 above).

*Hours include courses that may fulfill GE or university requirements.

Minor Theatre Arts Education (33 hours)

Minor Requirements

1. Complete the following with a B grade or better:
   TMA 101, 112, 160.
2. Apply for entrance approval from the theatre and media arts education committee.
3. Complete the following:
   TMA 123, 201, 202, 236, 267, 268, 336, 436, 453.
4. Complete one course from the following:
   TMA 266, 368.
5. Complete one course from the following:
   TMA 395, 396.

Minor Theatre Studies (21 hours)

Minor Requirements

1. Complete the following with a B grade or better:
   TMA 101 or 102; 112, 160.
2. Be admitted to the minor program by application (see the department office, D-581 HFAC).
3. Upon acceptance into the minor program, complete the following:
   TMA 114, 201, 202; 260R or 360R.
4. Complete one course from the following:
   TMA 123, 236.
5. Complete one course from the following:
   TMA 395, 396.

Theatre and Media Arts (TMA)

Undergraduate Courses

100. Introduction to Visual Literacy. (3:2:2)
Overview of visual communication, with hands-on experience in multimedia design and tools, structured to increase awareness of visual functions and develop beginning proficiency with computer-assisted visual communications.

101. Introduction to the Theatre. (3:3:1) Independent Study also.
Reading, viewing, analyzing, writing about, and interacting with contemporary plays and performances to explore both theatre fundamentals and ways theatre addresses questions and concerns of our time. Lab required.

102. Introduction to Film. (3:4:2)
Analytical studies for understanding and appreciating media forms and messages, as well as basic history, theory, and aesthetics. Lab required.

110. Media Arts Experience. (1:0:4) Prerequisite: premajors only.
Practical introductory experience working in media environments (including film and broadcast facilities).

112. Collaboration, Research, and Visualization. (2:4:0) Prerequisite: premajor status.
Overview and practical applications of principles of collaboration, research, and visualization as essential elements of appreciation and production of theatre and media arts projects.

114. Reading and Constructing Narratives. (3:3:3) Prerequisite: theatre or media arts major status.
Analyzing basic narrative principles; conceptualizing and writing narratives for theatre and media.

121. Voice and Diction. (2:3:1) Prerequisite: TMA, MDT, or communications (print and electronic journalism) major status or instructor's consent.
Skills involved in producing an effective voice; International Phonetic Alphabet. Lab required.

122. Voice Production. (2:3:1) Prerequisite: acting major status or instructor's consent.
Exercises to aid in freeing tensions, habits/patterns, and finding natural state of the voice. Lab required.

123. Acting Fundamentals. (2:4:1) Recommended: concurrent enrollment in TMA 122, 125.
Fundamental acting skills: exercises in perception, objective/action, thought processes, scoring of scripts. Lab required.

124. Acting. (3:6:0) Prerequisite: major status; TMA 114, 123. By audition. Acting BFA majors: recommended concurrent enrollment in TMA 222, Dance 134.
Integrating acting skills; building a character through exercises and scene work.

125. Yoga and Alexander Technique. (1:2:0) Prerequisite: premajor status.
Techniques of relaxation, breath, focus, and posture to enhance actor's body and voice as a whole integrated tool in performance.

127. Beginning Stage Combat. (1:2:0)
Basic hand-to-hand stage combat instruction. Introduction to tumbling and falls.

150. Public Speaking. (3:3:0)
Principles and methods of public speaking; speaking experiences.

160. Theatre Production 1. (1:2:2) Prerequisite: premajors only.
Practical experience in the scene shop, costume shop, and lighting lab. Hands-on training for further production experience.

174. Electronic News Gathering. (3:3:0) Prerequisite: TMA or communications major status.
Principles and techniques for electronic news gathering for broadcast journalism applications.

185. Production: Basic. (3:3:3) Prerequisite: pre–media arts major status.
Introduction to basics of film and video production. Includes lecture and practical lab experiences with audio and video.

187. Production Management: Beginning. (3:3:3) Prerequisite: TMA 102, 112, 185.
Fundamentals of media production: budgeting, scheduling, and management skills.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: major status, TMA 114 and instructor's consent.
Off-campus experience or internship in theatre and media arts.

201. Theatre History 1. (3:3:0)
Civilization from Greek antiquity through Renaissance, primarily from perspective of dramatic literature and performance. Ways in which performance functions within particular socioeconomic, political, religious, and aesthetic perspectives.

202. Theatre History 2. (3:3:0)
Civilization from Renaissance through present, primarily from perspective of dramatic literature and performance. Ways in which performance functions within particular socioeconomic, political, religious, and aesthetic perspectives.

212R. Forum. (0.5:1:0 ea.)
Lecture and question-and-answer sessions with industry professionals and scholars.

215R. Workshop 1: Special Projects. (1–6:0:Arr. ea.)
Special projects in theatre and media arts.

220R. Workshop 1: Acting. (1–3:0:Arr. ea.) Prerequisite: instructor's consent.
Experience in production: acting.

222. Phonetics. (2:3:1) Prerequisite: acting major status or instructor's consent; TMA 114, 122.
Correct use of Standard American Stage Dialect with International Phonetic Alphabet. Identification of speech/articulation problems.

223. Acting Improvisation. (2:4:0) Prerequisite: major status; TMA 114, 123, 124. By audition. Acting majors: recommended concurrent enrollment in TMA 222, 224, Dance 140R.
Discovery of emotion, thought process, and impulse through improvisation.

224. Acting for Film and TV. (3:6:Arr.) Prerequisite: TMA or communications major status; TMA 114, 123, 124. By audition. Acting majors: recommended concurrent enrollment in TMA 222, 223, Dance 140R.
On-camera techniques for features, sitcoms, industrials, and commercials. Lab required.

225. Neutral Mask. (2:2:0) Prerequisite: major status; TMA 114, 123, 125. By audition.
Use of masks in teaching specificity of movement, communication, and emotion.

229. Musical Scene Study. (3:6:0) Prerequisite: major status; TMA 114, 123, 124. By audition. Acting majors: TMA 123, 124, Music 161, Dance 140. Recommended for acting majors: concurrent enrollment in TMA 225.
In-depth study of two genres of musical theatre; text analysis, research, written assignments.

236. Directing Fundamentals for Stage and Screen. (2:2:1) Prerequisite: major status; TMA 114.
Fundamental elements of stage and media directing, including observation, collaboration, imagination, casting, working with actors, camera, spaces, words, images, rehearsals, and final product.

241. Screenwriting 1. (3:4:0) Prerequisite: major status; TMA 114; 291 or 292 or concurrent enrollment.
Basic narrative and nonfiction (documentary, educational, industrial, multimedia) screenwriting principles through reading, viewing, testing, and completing writing assignments.

251. Playwriting 1. (3:4:0) Independent Study also.
Basic playwriting principles through reading, completing writing assignments, testing, and writing the first draft of a one-act play.

260R. Theatre Production 2. (1:0:4 ea.) Prerequisite: major status; TMA foundation courses.
Practical experience in specialized shops or backstage experience on realized productions.

262. Costume Design 1. (2:4:0) Prerequisite: major status; TMA foundation courses.
Costume history, rendering, and theory. Assistant costume designers for departmental productions may be selected from students enrolled in this course.

263. Scenic Design 1. (2:4:0) Prerequisite: major status; TMA foundation courses.
Basic approaches to scenic design. Perspective drawing, rendering, models, and computer graphics. Assistant designers for departmental productions may be selected from students in this course.

264. Lighting Design 1. (2:4:0) Prerequisite: major status; TMA foundation courses.
Basic approaches to lighting design. Plot, maintenance, and board operation. Assistant designers for main season productions may be selected from students enrolled in course.

265A. Costume Construction 1: Flat Patterns. (2:4:0) Prerequisite: major status; TMA foundation courses.
Basic skills in flat pattern making. Specific projects for departmental productions will be assigned to students enrolled in this course.

265B. Costume Construction 1: Draping. (2:4:0) Prerequisite: major status; TMA foundation courses.
Basic skills in drape-drafting patterns. Specific projects for departmental productions will be assigned to students enrolled in this course.

266. Set Construction 1. (2:4:0) Prerequisite: major status; TMA foundation courses.
Intermediate skills in scenic construction and stage maintenance.

267. Makeup 1. (2:4:1)
Elementary techniques in makeup application for film, television, and stage. Lab work on main season productions is required.

268. Design for Education. (2:4:0) Prerequisite: major status; TMA foundation courses.
Introduction to design for educational theatre. Costumes, setting, and lighting, with emphasis on designing with restricted budgets.

271. Multimedia Literacy. (3:3:2) Prerequisite: CpIn 100 or CS 100.
Designing and creating digital media used interactively, including exposure to production and authoring tools; orientation to the aesthetics, theory, and history of interactive multimedia.

273R. Electronic Field Production and Direction. (2:2:Arr. ea.) Prerequisite: TMA or communications (print and electronic journalism) major status.
Principles and techniques of information gathering and storytelling. Recording and editing video and audio. Lab required.

274. Nonfiction Production. (3:3:0) Prerequisite: TMA 185, 187; 293 or concurrent enrollment.
Fundamental principles of documentary and experimental filmmaking. Lecture, discussion, lab, and individual/group experiences and critiques.

277R. Television Studio Production. (3:2:3 ea.) Prerequisite: TMA 174 or 273R.
Principles and techniques for creating live and taped studio production of news, music, and drama. Lab required.

285. Production: Intermediate. (3:3:3) Prerequisite: major status; TMA 185, 187; 291 or 292.
Survey and application of the basics of narrative and nonfiction, including 16-mm film. Lecture, discussion, lab, and individual/group experiences and critiques. Fee.

291. Media Arts History 1. (3:3:0) Prerequisite: major status; TMA foundation courses.
Survey of social, aesthetic, business, and technical dimensions of film and media from 1895 to 1945.

292. Media Arts History 2. (3:3:0) Prerequisite: major status; TMA foundation courses.
Survey of social, aesthetic, business, and technical dimensions of film and media from 1946 to present.

293. History of Documentary and Nonfiction Film. (3:3:0) Prerequisite: major status; TMA 291 or 292.
Introduction to and contextualization of documentary film from its inception to present.

294. History of Animation. (3:3:0) Prerequisite: TMA 102.
Origins and developments of animation internationally to the present, focusing on aesthetic, technical, political, and economic aspects of the medium.

295. History of the Moving Image. (3:3:0) Prerequisite: TMA 102.
Origins and development of the moving image in the twentieth and twenty-first centuries as revealed in television-as-art/entertainment and/or multimedia focusing on social contexts.

299R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: major status, theatre and media arts foundation courses. By application only.
Off-campus experience or internship in theatre or media arts.

300. History of Music Dance Theatre. (1:3:0) Prerequisite: Music 290, Dance 243R, 244R, TMA 114; concurrent enrollment in Dance 300, Music 300. Recommended: concurrent enrollment in Music 328, Dance 328, TMA 328.
Theatre in the Western tradition from classical antiquity to present, emphasizing union of music, dance, and theatre.

315R. Workshop 2: Special Projects. (1–3:0:Arr. ea.)
Intermediate projects in theatre or media arts.

319A. Advanced Narrative Production 1. (3:4:3) Prerequisite: major status; TMA 123, 236, 241, 285. By application only.
Preproduction and production of short projects, including digital and 16-mm sound film production in narrative form. Discussion, lab, and individual/group experiences and critiques. Fee.

319B. Advanced Narrative Production 2. (1–3:Arr.:Arr.) W, Sp, Su Prerequisite: TMA 319A. By application only.
Preproduction and production of short projects, including digital and 16-mm sound film productions in narrative form. Discussion, lab, and individual/group experiences and critiques. Fee.

322. Classical Voice. (2:4:0) Prerequisite: acting or MDT major status or instructor's consent. Acting majors: TMA 114, 122, 123, 124, 222. MDT majors: TMA 114, 121, 123, 124.
Speech techniques (word stress, inflection, pitch, pace, etc.) applied in the classical play.

324. Acting Classics. (3:6:0) Prerequisite: acting or MDT major status or instructor's consent. Acting majors: TMA 114, 122, 123, 124, 222; recommended: concurrent enrollment in TMA 322, 325. MDT majors: TMA 114, 121, 123, 124.
Acting skills helpful in classical literature, emphasizing Shakespearean scansion and text analysis.

325. Stage Combat. (2:4:2) Prerequisite: acting major status or instructor's consent; TMA 114, 125, 225, Dance 134R.
Skills of safe hand-to-hand combat, including use of rapier, dagger, and broadsword, for stage and screen.

327. Performance for Broadcast. (2:2:5) Prerequisite: TMA or communications (print and electronic journalism) major status or instructor's consent; TMA 121, 123, or communications major status.
Practice and theory presenting materials for documentary, news, educational broadcasts, and other venues. Lab required.

328. Junior Music Dance Theatre Seminar. (1:2:4) Prerequisite: music dance theatre BFA major status; TMA 114, 229; concurrent enrollment in Dance 328, Music 328. Recommended: concurrent enrollment in Music 300, Dance 300, TMA 300.
Intensive integration of music, dance, and theatre for the performer.

329. Theatre and Film Acting Conservatory. (3:6:Arr.) Prerequisite: major status; TMA 114, 122, 123, 124, 224. By audition.
Extensive work on a theatre or film project through semester, culminating in performance of play or preview of film/video.

330R. Assistant Directing. (2:0:9 ea.) Prerequisite: major status; TMA foundation courses; TMA 336.
Assisting directors for departmental productions.

331. Directing Narrative Literature. (3:3:1) Prerequisite: major status; TMA 114.
Theory and practice of adapting, directing, and performing nondramatic literature. Readers Theatre.

336. Directing Principles and Practices for Stage and Screen. (3:4:1) Prerequisite: major status. Theatre major: TMA 114, 236. Media arts major: TMA 114, 185, 236.
Theories and processes of taking a scene from script to production.

341. Screenwriting 2. (3:3:0) Prerequisite: major status; TMA 241. By application only.
Intermediate conceptualization, screenwriting, and development for narrative or nonnarrative projects.

350R. Play Review. (1:1:0 ea.) Prerequisite: major status or instructor's consent.
Reading, analyzing, discussing, and writing reviews of new scripts for young audiences.

351. Playwriting 2. (3:4:0) Prerequisite: major status or instructor's consent; TMA 114, 251.
Workshop course designed to assist more advanced students in furthering their playwriting skills by writing the first draft of a full-length play.

352. Drama in the Elementary Classroom. (2:2:2)
Using theatre techniques as a tool to enrich all subject matter taught in the elementary school classroom. Puppetry, improvisation, storytelling, etc.

355. Coaching Individual Performance. (2:2:2) Prerequisite: major status; TMA 114, 123.
Basic skills for coaching high school students to excel in individual performance competition: oral interpretation, mono-acts, pantomime, etc.

360R. Theatre Production 3. (1:0:4 ea.) Prerequisite: major status; TMA 114, 260.
Advanced practical experience in specialized shops or backstage experience on realized productions.

361. Stage Management 1. (2:2:2) Prerequisite: major status; TMA foundation courses.
Principles and objectives of stage management. Assistant stage managers for departmental productions will be selected from students enrolled in this course.

362. Costume Design 2. (2:4:0) Prerequisite: major status; TMA 114, 262.
Art approaches to costume design. Assistants and production designers for departmental productions may be selected from students enrolled in this course.

363. Scenic Design 2. (2:4:0) Prerequisite: major status; TMA 114, 263.
Art approaches to scenic renderings, models, and computer graphics. Assistants and designers for departmental productions may be selected from students enrolled in this course.

364. Lighting Design 2. (2:4:0) Prerequisite: major status; TMA 114, 264.
Art approaches to renderings and plots. Advanced computer graphics. Assistants and designers for departmental productions may be selected from students enrolled in this course.

367. Makeup 2. (2:4:1) Prerequisite: TMA 267.
Advanced techniques in makeup and introduction to prosthetics. Supervision on departmental productions required. Assistant designers will be selected from this course.

368. Scenic Art. (2:4:0) Prerequisite: major status; TMA foundation courses.
Basic approaches to painting and finishing scenic elements. Priming, lay-in, texturing, and effects. Possible work painting on departmental productions.

369R. Design and Technology Projects. (1–4:Arr.:Arr. ea.) Prerequisite: major status; TMA foundation courses; instructor's consent.
Practical experience working as main season designers; related topics.

370R. Practicum: Interactive Multimedia. (2:2:6 ea.)
Skills in and practice with current IMM tools.

371. Interactive Design and Authoring. (3:3:2) Prerequisite: major status; theatre and media arts foundation courses, TMA 271. By application only.
Theory, design, and practice of creating and authoring interactive multimedia. Lab required.

372R. Media Collaboration. (1–3:Arr.:0 ea.) Prerequisite: major status; TMA 114; by application only.
Experience collaborating with senior capstone media arts experience.

373. Television Commercial Production. (3:3:0) Prerequisite: TMA or communications major status. By application only.
Conceptualizing, developing, and producing commercial television spots for broadcast.

378R. Producing and Directing Television Studio Productions. (3:2:3 ea.) Prerequisite: media arts or communications major status; TMA 277R.
Directing techniques in creating electronic images and sound for live dissemination. Lab required.

384R. Practicum: Special Topics in Media Arts. (1–6:Arr.:1 ea.)
Fundamentals of special media skills.

386. Marketing and Distribution for Film, Video, and Multimedia. (3:3:1)
Survey of vocabulary, players, skills (negotiating, documenting, business processes) of marketing and distribution in film, video, and multimedia.

387. Production Management: Advanced. (3:3:1) Prerequisite: major status; TMA foundation courses; TMA 187.
Overview of techniques for managing large arts projects, involving individual and team projects.

388R. Media Arts Crew. (1–3:0:Arr. ea.) Prerequisite: TMA 114, 185. By application only.
Practical supervised experience in media arts production. Exposure to protocols, as well as organizational and technical aspects.

389R. Producing Symposium. (3:3:0 ea.) Prerequisite: major status; TMA 114. By application only.
Developing organizational skills by workshop meetings with industry professionals, who share their producing experiences, styles, and strategies.

391. Introduction to Media Arts Theory. (3:6:0) Prerequisite: TMA 291 or 292.
Identifying and analyzing contemporary film and media theories, with application to specific media texts.

392. Children's Media. (3:3:0)
Historical and theoretical survey of media for and about children and the literature that informs it; discussions and strategies relating to production, reception, pedagogy, and parenting.

394. Conceptualizing Nonnarrative Forms. (3:3:2) Prerequisite: major status; TMA 274.
Advanced readings and practical applications of various nonfiction forms.

395. Dramatic Literature 1. (3:3:0) Prerequisite: TMA 201, 202.
Survey of significant dramatic texts, from ancient Greece through 17th-century France, using variety of critical models emphasizing performance-based criticism.

396. Dramatic Literature 2. (3:3:0) Prerequisite: TMA 201, 202.
Survey of varied dramatic texts from Renaissance through present and contemporary literary theories such as formalism, Marxism, and postcolonialism. Theorizing practice and practicing theory through critical analysis, multimedia presentation, and performing.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: major status; theatre and media arts foundation courses. By application only.
Off-campus experience or internship in theatre or media arts.

410R. Theatre Capstone. (1–3:Arr.:Arr. ea.) Prerequisite: major status; TMA 114. By application only.
Creating a final academic or creative paper, experience, or project, serving as capstone to undergraduate experience and springboard to postgraduate aspirations.

419A. Advanced Narrative Direction A. (3:3:0) Prerequisite: TMA 319A or B, 336. By application only.
Working with actors; visual expression; artistic identity. Creating an advanced portfolio. Discussion, lab, individual/group experience and critiques.

419B. Advanced Narrative Direction B. (1–3:Arr.:Arr.) Prerequisite: TMA 419A. By application only.
Working with actors; visual expression; artistic identity. Creating an advanced portfolio. Discussion, lab, individual/group experience and critiques.

420R. Performance Workshop 2. (1–3:0:Arr. ea.) Prerequisite: instructor's consent.
Advanced experience in production: acting.

422. Dialects. (2:4:1) Prerequisite: acting major status or instructor's consent; TMA 114, 122, 123, 124, 222.
Major stage dialects.

423. Comedy Styles. (3:6:0) Prerequisite: major status or instructor's consent; TMA 114, 122, 123, 124, 125, 222, 223, 225, Dance 134. By audition.
Concepts and techniques that create comedy. Major comedic styles throughout history and their impact on currently produced works.

424. Advanced Acting. (3:6:0) Prerequisite: acting or MDT major status or instructor's consent. Acting majors: TMA 114, 122, 123, 124, 222; recommended: concurrent enrollment in TMA 422. MDT majors: TMA 114, 121, 123, 124.
Scene studies in extended realism. Absurdism, American classics, Shaw, Chekhov, etc.

425. Character Mask. (2:4:0) Prerequisite: acting major status or instructor's consent; TMA 114, 123, 124, 125, 223, 225.
Use of the body as a primary tool for character and script interpretation.

426. Music Dance Theatre: Senior Performance Project. (1:0:5) Prerequisite: TMA 361; concurrent enrollment in Music 426, Dance 426.
Participation in an MDT performance group culminating in a showcase for agents and directors in New York City during April.

427. Auditions. (3:6:0) Prerequisite: major status. By audition. MDT majors: Dance 114, 240, TMA 121, 123, 124, 229, 324 (or 424). Acting majors: Dance 140, Music 140, 161, TMA 114, 122, 123, 124, 125, 222, 225, 229, 324, 424. Recommended concurrent enrollment in TMA 425.
Auditions, cold reading, resumés, and the business end of acting, music, and dance for the professional performer.

429. Performance: Recital. (3:2:4) Prerequisite: major status. By audition. MDT majors: TMA 114, 121, 123, 124, 229, 324 (or 424). Acting majors: TMA 114, 122, 123, 124, 222, 229, 324, 424.
Thirty- to forty-five minute performance of cuttings from varied genres.

436. Theatre Directing Practicum. (3:2:4) Prerequisite: major status and instructor's consent; TMA foundation courses; TMA 236, 336.
Directing projects for class critique and public presentation.

441R. Screenwriting 3. (3:4:0 ea.) Prerequisite: major status; TMA 291 or 292; 341. By application only.
Advanced narrative and/or nonfiction screenwriting principles. Emerging technology.

443R. Writer/Director/Actor Workshop. (3:6:1 ea.) Prerequisite: major status; TMA 114.
Collaborative workshop developing new stage and screenplays through exercises, discussion, and writing. Scripts selected competitively; public readings at end of course.

450. Dramaturgy: Theory and Practice. (3:4:0) Prerequisite: TMA 201, 202, 395, 396; or instructor's consent.
Techniques and methodology for dramaturgy, literary management, and educational outreach, including a dramaturgical project.

451R. Playwriting 3. (3:4:0 ea.) Prerequisite: major status or instructor's consent; TMA 114, 351.
Workshop course designed to assist more advanced students in furthering their playwriting skills by writing or rewriting a play.

452R. Puppetry. (3:4:0 ea.) Prerequisite: major status or instructor's consent; TMA 114.
Theories, techniques, and experience constructing and operating puppets for use in performance, recreational, and educational settings.

453. Theatre Pedagogy. (2:2:2) Prerequisite: major status; ScEd 276R, 326, 376R.
Explores, analyzes, and practices theories, methods, and techniques utilized by effective theatre teachers.

455R.Theatre Tour. (3:0:Arr. ea.) Prerequisite: major status or instructor's consent. By audition.
Theatre for young audiences; touring experience.

457. Media in the Contemporary Classroom. (2:4:4)
Developing educational methods and techniques for using media in the specialized media classroom; study of educational models and theories related to historical and emerging media technologies.

460. Portfolio. (2–4:Arr.:0) Prerequisite: major status; TMA 114. By application only.
Design and technology capstone. Resumés, cover letters, and job searches. Professional portfolio presentation before faculty and guests.

461R. Stage Management 2. (1–3:0:Arr. ea.) Prerequisite: major status; TMA 114, 361.
Stage management of BYU productions. Stage managers for departmental productions are enrolled in this course.

462. History of Costume. (3:3:0) F
Costume, clothing, and textiles as mediums for understanding stages and states of individuals, families, and societies; apparel diversity and cultural identity.

465R. Costume Construction 2. (2:4:0 ea.) Prerequisite: major status; TMA 114, 265A, 265B.
Advanced assignments in hands-on costuming projects for departmental productions.

466R. Set Construction 2. (2:4:0 ea.) Prerequisite: major status; TMA 114, 266.
Advanced skills in scenic construction and stage maintenance.

467. Makeup 3. (2:4:0) Prerequisite: TMA 367.
Advanced techniques in makeup application, including advanced prosthetics and wig making. Designers for departmental productions may be selected from students enrolled in this course.

468. Properties. (2:4:0) Prerequisite: major status; TMA foundation courses.
Basic theatre and film techniques for buying, building, and maintaining production properties. Work on departmental productions.

469. Theatre Management. (3:4:0) Prerequisite: major status; TMA foundation courses.
Basic philosophies of box office, front-of-house, and theatre marketing.

471. Advanced Design and Authoring. (3:3:2) Prerequisite: major status; TMA 371. By application only.
Advanced design and authoring of interactive media programs.

473R. Writer/Director Workshop (Narrative). (3:6:Arr. ea.) Prerequisite: major status; TMA 419. By application only.
Collaborative directing, videotaping, editing, and revising scenes from advanced student scripts.

474R. Writer/Director Workshop (Nonfiction/Multimedia). (3:9:Arr. ea.) Prerequisite: major status; TMA 293, 394. By application only.
Collaborative development, revision, and polishing of nonfiction or multimedia projects.

475R. Media Arts Capstone. (1–3:Arr.:Arr. ea.) Prerequisite: major status. By application only.
Final collaborative project for media students. May be narrative, nonfiction, multimedia, writing, or critical studies format. Fee.

477R. Issues in Media Arts. (3:5:0 ea.) Prerequisite: major status; TMA 291, 292.
In-depth study of key media arts issues, within context of gospel principles.

491. Ethics, Aesthetics, and Theology. (2:4:0) Prerequisite: theatre arts major status and TMA 201 or 202.
Analyzing and considering interrelationships of ethical, aesthetic, and theological dimensions of creating and viewing media arts and theatre texts.

492R. Media Arts Genres. (3:2:3 ea.) Prerequisite: major status; TMA 291, 292.
Intensive analysis of a single major traditional media genre (i.e., western, musical, sitcom, or melodrama) with consideration of contextual, subtextual, and textual issues.

494. Transcendence: Religion and Film. (3:6:0) Prerequisite: major status; TMA 291, 292.
Historical, stylistic, and thematic survey of approaches to religious and spiritual subject matter in film.

495. Shakespeare: Text and Performance. (3:4:0) Prerequisite: major status or instructor's consent.
Intensive, multifaceted exploration of selected Shakespearean texts, examined through a wide range of analytical and experiential approaches.

496R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: major status. By application only.
Off-campus experience or internship in theatre or media arts.

497. Media as a Mirror of Our Times. (3:2:3) Prerequisite: major status; TMA 291, 292.
Interdisciplinary approach to media texts as aesthetic and historical documents expressing a people, place, and time.

498R. Special Topics in Media Arts. (3:3:3 ea.) Prerequisite: major status; TMA 291, 292.
Consideration of compelling issues in media arts practice, theory, history, and criticism.

500-Level Graduate Courses (available to advanced undergraduates)

515R. Workshop 3: Special Projects. (1–6:0:Arr. ea.) Prerequisite: major status; TMA 114; instructor's consent.
Advanced special projects in theatre or media arts.

516R. Theatre and Media Arts Instruction. (1–3:Arr.:Arr. ea.) Prerequisite: major status; TMA 102, 114 (or equivalents); instructor's consent.
Developing teaching methods and techniques for instruction in theatre and media arts classroom.

536R. Directing Workshop. (3:Arr.:Arr. ea.) Prerequisite: major status; TMA foundation and core courses; TMA 236, 336, 436. By proposal/application only.
Advanced experience in production: directing.

550R. Theatre for Young Audiences. (3:3:1 ea.) Prerequisite: major status or instructor's consent; TMA 114.
Theories, techniques, and experience in creating formal drama for child and youth audiences.

551R. Playwriting 4. (3:4:0 ea.) Prerequisite: major status or instructor's consent; TMA 114, 451, or equivalent.
Workshop course designed to assist more advanced students in furthering their playwriting skills by writing or rewriting a play.

552. Improvisation. (3:3:2) Prerequisite: major status or instructor's consent; TMA 114, 123.
Informal or improvised dramatic techniques with children, adolescents, and/or adults.

557. Storytelling. (2:2:1) Prerequisite: major status or instructor's consent.
Theories, techniques, and practice in the art of telling spellbinding stories.

562. Costume Design 3. (2:4:0) Prerequisite: major status; TMA 114, 462.
Advanced conceptual approaches to costume design. Strong background in costuming required. Designers for departmental productions will be selected from students enrolled in this course.

563. Scenic Design 3. (2:4:0) Prerequisite: major status; TMA 114, 463.
Advanced conceptual scenic design. Assumes strong background in scenography. Designers for departmental productions may be selected from students enrolled in this course.

564. Lighting Design 3. (2:4:0) Prerequisite: major status; TMA 114, 464, or equivalent.
Advanced conceptual lighting projects. Assumes strong background in lighting. Designers for departmental productions may be selected from students enrolled in this course.

565R. Specialty Costumes. (2:4:0 ea.) Prerequisite: major status; TMA 114, 265A, 265B, or equivalent.
Advanced skills in millinery, dyes, footwear, and allied project areas.

567R. Makeup Project. (1–6:0:Arr. ea.) Prerequisite: major status; TMA 267 and instructor's consent.
Practicum in makeup design and application. Departmental production designers and teaching assistants will be enrolled in this course.

568. Sound. (2:4:0) Prerequisite: major status; TMA foundation courses.
Basics in sound design and reinforcement. Work on departmental productions.

569R. Design for Production. (1–4:0:Arr. ea.) Prerequisite: major status; TMA 114 or equivalent; instructor's consent.
Practical experience working with departmental designers; related topics.

599R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: major status; TMA 114 or equivalent. By application only.
Off-campus experience or internship in theatre or media arts.

Graduate Courses

For 600- and 700-level courses, see the BYU 2003–2004 Graduate Catalog.

Theatre and Media Arts Faculty

Professors

Fielding, Eric (1992) BA, Brigham Young U., 1974; MFA, Goodman School of Drama, Art Inst. of Chicago, 1976.
Scanlon, Rory R. (1984) BA, Brigham Young U., 1980; MFA, U. of Illinois, 1984.
Swenson, Janet L. (1974) BA, MA, Brigham Young U., 1969, 1974; MFA, U. of Utah, 1992.

Associate Professors

Duncan, Dean W. (1992) BFA, Brigham Young U., 1987; MA, U. of Southern California, 1991; PhD, U. of Glasgow, Scotland, 1999.
Farahnakian, Mary (1988) BA, U. of Tehran, Iran, 1961; PhD, Brigham Young U., 1977.
Ferguson, Stanley P. (1996) BA, Brigham Young U., 1968.

Gale, Larrie E. (1987) BA, MA, San Diego State Coll., 1967, 1970; PhD, U. of Utah, 1973.
Heiner, Barta (1988) BA, Brigham Young U., 1971; MFA, American Conservatory Theatre, 1977.
Morgan, David (1991) BA, Brigham Young U., 1985; MFA, National Theatre Conservatory, 1990.
Nelson, George D. (1990) BA, Brigham Young U., 1977; MFA, U. of Washington, 1979.
Nelson, Robert A. (1977) BA, U. of Arizona, 1970; PhD, U. of Utah, 1976.
Samuelsen, Eric (1992) BA, Brigham Young U., 1983; PhD, Indiana U., 1991.
Sorensen, Rodger D. (1996) BA, MA, Brigham Young U., 1972, 1974; PhD, U. of Texas, Dallas, 1999.
Threlfall, Timothy A. (1996) BFA, U. of Idaho, 1983; MFA, U. of Washington, 1987.

Assistant Professors
Chabries, April (1998) BA, Brigham Young U., 1991; MS, MFA, Utah State U., 1996, 1999.
Harrop-Purser, Laurie (2001) BA, Brigham Young U., 1986; MFA, National Theatre Conserv., 1990.
Larsen, Darl E. (1998) BA, U. of California, Santa Barbara, 1990; MA, Brigham Young U., 1993; PhD, Northern Illinois U., 2000.
Loosli, Kelly (2002) BA, Brigham Young U., 1996.
Russell, Thomas (2000) BA, Brigham Young U., 1988.
Swenson, Sharon L. (1987) BA, MA, PhD, U. of Utah, 1968, 1974, 1993.

Instructors
Jensen, Amy P. (2000) BA, MA, Brigham Young U., 1990, 1998.
Jones, Megan Sanborn (2000) BA, MA, Brigham Young U., 1995, 1997.

Adjunct Faculty
Brenda Butterfield, James D'Arc, Duane C. Roberts.

Emeriti
Bentley, Marion J. (1971) BS, U. of Utah, 1950; MA, Stanford U., 1958; PhD, U. of Utah, 1968.
Crosland, Ivan A. (1971) BS, MA, Brigham Young U., 1961, 1965.
Gledhill, Preston R. (1947) BA, Brigham Young U., 1939; Louisiana State U., New Orleans, 1940; PhD, U. of Wisconsin, Madison, 1951.
Henson, Charles A. (1958) BS, MS, EdD, Brigham Young U., 1957, 1959, 1980.
Jenkins, Jean R. (1967) BA, MA, Brigham Young U., 1947, 1966.
Metten, Charles L. (1962) BA, MA, U. of California, Los Angeles, 1951, 1952; PhD, U. of Iowa, 1960.
Oaks, Harold R. (1970) BA, MA, Brigham Young U., 1960, 1962; PhD, U. of Minnesota, Minneapolis, 1964.
Pope, Karl T. (1966) BA, MA, Brigham Young U., 1962, 1964; PhD, Wayne State U., 1966.
Walker, Oscar Lee (1969) BS, MIE, Brigham Young U., 1968, 1975.
Whitman, Charles W. (1965) BA, MA, Brigham Young U., 1957, 1958; PhD, U. of Minnesota, Minneapolis, 1967.
Woodbury, Lael J. (1965) BS, Utah State U., 1952; MA, Brigham Young U., 1953; PhD, U. of Illinois, 1954.

Ukrainian

See Germanic and Slavic Languages.

Vietnamese

See Center for Language Studies.

Visual Arts

Mark J. Johnson, Chair
C-502 HFAC, (801) 422-4429

College of Fine Arts and Communications Advisement Center
D-444 HFAC, (801) 422-3537

Admission to Degree Programs

Admission to the freshman level in the Department of Visual Arts is obtained through an application process. Special enrollment limitations for degree programs will be applied. Please see the college advisement center for specific details.

The Discipline

The Department of Visual Arts serves five main purposes: (1) to prepare competent professionals in various fields of the plastic and graphic arts; (2) to prepare qualified designers to solve problems inherent in two- and three-dimensional applications; (3) to train historians who can critically appraise works of art; (4) to prepare art educators for teaching the visual arts at the elementary and secondary levels; and (5) to generally develop individuals' aesthetic sense by helping them experience art.

Career Opportunities

The art education degree certifies the student as an art specialist in public or private institutions, grades K–12. Other opportunities for the certified art specialist are in foreign school systems, recreation programs, art museum education programs, and galleries. Students qualify for positions in artist-in-the-schools programs and arts councils and as art consultants/coordinators. The degree also provides a foundation for graduate study leading to advanced degrees.

Most opportunities for careers related to art history exist in teaching at the junior college and university levels. The art history major traditionally prepares students for related graduate study, but it also provides excellent training for many art- and humanities-related careers and provides a solid foundation for entering several professional graduate programs.

The art history major is valuable for those going into any aspect of museum work, including art conservation/restoration, curatorial work, museum research, and museum youth education programs. It is also a useful and often key undergraduate major for careers in art law, architecture, historical restoration, art galleries, auction houses, and art resource/research library studies. Local, state, and federal agencies offer career possibilities related to arts and humanities councils. Combined with one of several other majors, an art history minor helps prepare the student for any number of careers.

Studio art majors are prepared to compete as freelance, self-employed artists, working through galleries, exhibitions, and museums to promote and sell their work. The MFA degree also prepares artists to teach on a college or a university level. Other career opportunities include printmaking, illustration, production crafts, teaching, gallery and museum work, computer art applications, and other related careers.

Design majors are fully prepared for careers in each of the respective disciplines—

Graphic design: Advertising agencies, design studios, in-house design organizations, freelance in mediums such as books, posters, signage, billboards, commercials, corporate identity systems, and logos.

Illustration: In-house or freelance illustration focusing on book jacket, editorial, corporate, or institutional work; advertising, children's books, and computer applications, among others.

Interior design: Residential design or specialization, including remodeling, preservation, architectural design, space planning, art and accessory dealing, color consultation, drafting and/or computer-aided design.

Photography: Portraiture; commercial illustration; advertising; fashion; architectural photography; photo-journalism; editorial, stock, industrial, fine art, educational, medical, and travel photography; photographic conservation, marketing and manufacturing, and finishing.

Animation and multimedia are new areas for design exploration in the discipline.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) ..... 0–3.0 hours
(or Math ACT score of at least 22)
First-Year Writing (one course) 3.0
Advanced Writing (one course) 3.0
Advanced Languages/Math/Music (one to four courses) 3–20.0

Liberal Arts Core

Biological Science (one to two courses) 3–6.0
Physical Science (one to two courses) 3–7.0
American Heritage (one to two courses) 3–6.0
Wellness (one to three courses) 1.5–2.0
Civilization (two courses) 6.0

Arts and Sciences Electives

Arts and Letters (one course) 3.0
Natural Sciences (one course) 3–4.0
Social and Behavioral Sciences (one course) 3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BA	Art Education (K–12)
BA	Art History and Curatorial Studies
BA	Visual Arts
BFA	Animation
BFA	Art
	Emphases:
	Ceramics
	Painting
	Printmaking
	Sculpture
BFA	Graphic Design
BFA	Illustration
BFA	Photography
Minors	Advertising Design
	Art
	Art Education
	Art History and Curatorial Studies
	Theatre and Media Arts Design

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Art Education
MA	Art History and Curatorial Studies
MFA	Studio Art

For more information see the 2003–2004 Graduate Catalog.

General Information

Application Procedures for Freshmen

New students are accepted only once a year and may have their applications considered only twice. Enrollment is limited and based on several qualifications:

1. University and college admissions standards.
2. Completion of department application form.
3. Submission of slide portfolio.
4. Completion of creative exercise.

Appropriate forms are contained in an application packet available from either of the department offices (C-502 HFAC and 233 BRMB) at the beginning of winter semester, or by downloading the application from the department Web site.

Note: Art history majors complete item 1 only.

Freshman Enrollment

Application packets must be obtained before January 15 and returned before February 15. Candidates will be notified whether or not they have been accepted by April 4.

Note: Individuals receiving notice of acceptance are expected to enroll for the foundation 100-level courses the first year they are accepted to the program; otherwise, they will automatically be dropped and will need to reapply. Anyone wishing for an exception to this policy will need the written approval of the department chair.

Sophomore-Through-Senior BFA Degree Program Enrollment

Permission to enroll for sophomore-through-senior-level BFA degree program courses is granted to students upon satisfactory development of skills and creative abilities demonstrated in a portfolio of drawings and designs completed during the preceding year. Faculty from each major will assess portfolios of work submitted by students wishing to advance in their respective fields of study. Students invited to continue are permitted to enroll in specified courses at the next academic level.

Note: Student portfolios will be reviewed once a year; the deadline is February 15.

Transfer Students

Transfer students in art disciplines must meet with the appropriate area coordinator. Transfer students in design disciplines are required to participate in a portfolio review; the deadline is February 15. Contact the area coordinator.

Note: Students not accepted into BFA degree programs may elect to enroll in the bachelor of arts program in visual arts. Students may apply to the BFA program no more than twice.

Degree Program Coordinators/Advisors

Coordinators are appointed to counsel students in each of the 11 major/emphases. Coordinators will advise students about program objectives, course content and sequence, career goals, and other matters pertaining to their major field of study.

Special Notice

Students receiving C or lower grades in 300- or 400-level courses will be placed on department probationary status.

No D grade in department courses and required support courses will be applied toward graduation for BFA and BA majors.

Department Probationary Status

Students can be placed on probationary status for the following:

1. Inadequate academic performance.
2. Unprofessional attitude and lack of commitment.
3. BYU Honor Code violations.

Basic Degree Requirements

1. Student must meet application criteria for admission into the program.
2. All 100-level foundation courses must be completed before admission into sophomore-level courses.
3. A portfolio is required in all programs except art history.

BA Art Education (K–12) (84.5 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following first-year foundation courses:
   VA 120, 121A, 121B, 122, 131, 132, 133, 134.
2. Complete 6 hours from the following second-year foundation courses:
   VAStu 214, 215, 216, 217, 218.
3. Complete 6 hours from the same visual arts area (300-level or 400-level courses).
4. Complete the following:
   ArtHC 300.
   VAEdu 397.
5. Complete one course from the following:
   ArtHC 350, 353, 355.
6. Complete the following art education licensure requirements during the same semester:
   VAEdu 324.
   ScEd 276R.
7. Complete the following in sequential order:
   VAEdu 339, 377, 439, 478.
8. Complete the following additional licensure requirements:
   ArtHC 201, 202.
   MFHD 210.
   ScEd 326, 351, 375.
9. Complete a teaching assistant experience.
10. Complete the following during the same semester:
    ScEd 476R (12 hours required).
    VAEdu 476.

Recommended Courses

RelC 491, 492.

*Hours include courses that may fulfill GE or university requirements.

BA Art History and Curatorial Studies (55 hours*)

Major Requirements

1. Complete the following:
   ArtHC 201, 202, 203, 300.
   VAStu 200.
2. Ancient art: Complete one course from the following:
   ArtHC 302, 304, 306.
3. Medieval art: Complete one course from the following:
   ArtHC 310, 315, 317.
4. Renaissance and baroque art: Complete one course from the following:
   ArtHC 320, 325, 329, 330, 335.
5. Nineteenth-century art: Complete one course from the following:
   ArtHC 340, 345, 363, 365.
6. Modern art: Complete one course from the following:
   ArtHC 350, 353, 355, 367.
7. Non-Western art: Complete one course from the following:
   ArtHC 371, 375, 377, 380, 382.
8. Complete 3 hours from one of the following thesis courses:
   ArtHC 498, 499R.
9. Complete three courses from any of the following upper-division core courses not already taken:
   ArtHC 302, 304, 306, 310, 315, 317, 320, 325, 329, 330, 335, 340, 345, 350, 353, 355, 360, 363, 365, 367, 371, 375, 377, 380, 382, 399R, 400R, 420, 490R.
10. Complete one course from the following:
    Fren 201, Germ 201, Ital 201.

    Note: German is strongly recommended for those wishing to pursue graduate work in art history.
11. Cognate fields: Complete 6 hours (two courses) from an approved list of courses. See the department office or college advisement center for the most current approved courses list.

*Hours include courses that may fulfill GE or university requirements.

BA Visual Arts (49 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following core requirements:
   VA 111, 120, 121A, 121B, 122.
2. Complete 6 hours from the following:
   VA 131, 132, 133, 134, 135, 138.
3. Complete 9 hours of any VA, VADes, VAGD, VAIll, VAPho, or VAStu 200-level courses.
4. Complete the following:
   ArtHC 201, 202.

5. Complete 6 hours of design and/or art history courses from the following:
   ArtHC 302, 304, 306, 310, 315, 317, 320, 325, 329, 330, 335, 340, 345, 350, 353, 355, 360, 363, 365, 367, 371, 375, 377, 380, 382.
   VADes 328, 329.
   VAGD 349.
   VAIll 359.
   VAPho 379.
6. Complete 15 hours from the following:
   VA 333, 346, 356, 373.
   VAEdu 397.
   VAStu 321R, 322R, 327R, 328R, 333R, 340R, 349R, 350R, 351R, 353R, 354R, 355R, 356R, 358R, 359R.

   Up to 9 hours may be counted from the following courses to fulfill the above requirement:
   BusM 300, 340, 360.
   OrgB 320.
   TTE 450.

*Hours include courses that may fulfill GE or university requirements.

BFA Animation (69.5–72.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

The BFA in animation is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of its Department of Theatre and Media Arts and its Department of Visual Arts and the College of Engineering and Technology's School of Technology.

Major Requirements

1. Obtain acceptance into the animation BFA program.
2. There is a portfolio review during the sophomore year.
3. Complete the following premajor courses:
   TMA 102.
   VAAnm 160.
4. Complete the following general education courses:
   ArtHC 201, 202.
   TMA 100.
5. Complete the following foundation courses:
   TMA 114, 185, 212R, 294.
   VA 131, 134.
   VAAnm 260.

   Note: Prerequisites are waived for VA 131, 134.
6. Complete three courses from the following:
   InDes 231, 232.
   TMA 123, 462.
   VAAnm 350R, 360.
   VADes 234.
7. Complete two courses from the following:
   ArtHC 320, 325, 330, 335, 340, 345.
   TMA 291, 292, 462.
   VAIll 359.
   VAPho 379.
8. Complete 3 hours from one of the following:
   InDes 496R.
   TMA 399R.
   VADes 496R.
9. Complete 25 hours from the following or from other courses approved by faculty advisor:
   BusM 372.
   CS 142.
   InDes 210, 232, 310R, 410R; 230 and 231; 330 and 331; 430, 497R.
   TMA 123, 236, 241, 262, 263, 267, 285, 319, 384R, 452R, 475R, 557.
   VA 138.
   VAAnm 350R, 360, 361R, 362, 461R, 497R.
   VADes 234, 310.
   VAIll 351.
   VAPho 270, 272.
   VAStu 104.

Recommended Elective Courses for 3-D Animation

BusM 372.
InDes 230 and 231; 232; 330 and 331; 410R, 430.
TMA 475R.

Recommended Elective Courses for 2-D Animation

BusM 372.
InDes 310, 410R.
TMA 475R.
VA 138.
VAAnm 350R, 361R, 461R.
VADes 310.
VAIll 350R, 351.

BFA Art: Ceramics Emphasis (66.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

The BFA is a professional degree. Students may certify to teach art in public schools concurrent with the BFA Art program. See BA Art Education (K–12) requirements 7 through 12.

Major Requirements

1. Be accepted into the BFA program.
2. Complete a portfolio during junior year.
3. Complete the following core requirements:
   VA 111, 120, 121A, 121B, 122, 131, 133.
4. Complete the following:
   VAStu 214, 215, 216, 217, 218, 219, 358R.
5. Complete the following:
   ArtHC 201, 202.
6. Complete one course from the following:
   ArtHC 350, 353, 355.
7. Complete an additional 3 elective hours in art history from 300-level courses (*except* ArtHC 300).
8. Complete the following:
   VAEdu 397.
   VAStu 398, 440.
9. Complete 21 hours in upper-division ceramics studio courses.
10. Complete the following:
    VAStu 497R.

BFA Art: Painting Emphasis (66.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

The BFA is a professional degree. Students may certify to teach art in public schools concurrent with the BFA Art program. See BA Art Education (K–12) requirements 7 through 12.

Major Requirements

1. Be accepted into the BFA program.
2. Complete a portfolio during junior year.
3. Complete the following core requirements:
   VA 111, 120, 121A, 121B, 122, 131, 133.
4. Complete the following:
   VAStu 214, 215, 216, 217, 218, 219.
5. Complete the following:
   ArtHC 201, 202.
6. Complete one course from the following:
   ArtHC 350, 353, 355.
7. Complete an additional 3 elective hours in art history from 300-level courses (*except* ArtHC 300).
8. Complete the following:
   VAEdu 397.
   VAStu 398, 440.
9. Complete 24 hours in upper-division painting studio courses.
10. Complete the following:
    VAStu 497R.

BFA Art: Printmaking Emphasis (66.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

The BFA is a professional degree. Students may certify to teach art in public schools concurrent with the BFA Art program. See BA Art Education (K–12) requirements 7 through 12.

Major Requirements

1. Be accepted into the BFA program.
2. Complete a portfolio during junior year.
3. Complete the following core requirements:
   VA 111, 120, 121A, 121B, 122, 131, 133.
4. Complete the following:
   VAStu 214, 215, 216, 217, 218, 219.
5. Complete the following:
   ArtHC 201, 202.
6. Complete one course from the following:
   ArtHC 350, 353, 355.
7. Complete an additional 3 elective hours in art history from 300-level courses (*except* ArtHC 300).
8. Complete the following:
   VAEdu 397.
   VAStu 398, 440.
9. Complete 24 hours in upper-division printmaking studio courses.
10. Complete the following:
    VAStu 497R.

BFA Art: Sculpture Emphasis (66.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

The BFA is a professional degree. Students may certify to teach art in public schools concurrent with the BFA Art program. See BA Art Education (K–12) requirements 7 through 12.

Major Requirements

1. Be accepted into the BFA program.
2. Complete a portfolio during junior year.
3. Complete the following core requirements:
   VA 111, 120, 121A, 121B, 122, 131, 133.
4. Complete the following:
   VAStu 214, 215, 216, 217, 218, 219, 359R.
5. Complete the following:
   ArtHC 201, 202.
6. Complete one course from the following:
   ArtHC 350, 353, 355.
7. Complete an additional 3 elective hours in art history from 300-level courses (*except* ArtHC 300).
8. Complete the following:
   VAEdu 397.
   VAStu 398, 440.
9. Complete 21 hours in upper-division sculpture studio courses.
10. Complete the following:
    VAStu 497R.

BFA Graphic Design (73–76.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following core requirements:
   VA 111, 120, 121A, 121B, 122, 132, 133, 134.
2. Complete one course from the following:
   VA 131, 138.
3. Complete the following:
   VAGD 210, 243, 245, 310, 340, 341, 342, 343, 344, 441, 442, 443, 444, 488.
   VAIll 250.
4. Complete 5 hours of the following:
   VAGD 497R.
5. Complete the following history requirement:
   VAGD 349.
6. Complete one course from the following history requirements:
   ArtHC 350, 355.
   VADes 328, 329.
   VAIll 359.
   VAPho 379.
7. Complete four of the following supporting courses:
   BusM 340.
   Comms 230.
   VADes 496R.
   VAGD 348, 410R, 499R.
   VAIll 351, 352.
   VAStu 230R.

BFA Illustration (69 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following core requirements:
   VA 111, 120, 121A, 121B, 122, 131, 132.
2. Complete the following:
   VA 134.
   VAGD 243, 245.
   VAIll 210, 250, 350R, 351, 352, 353, 354, 451, 452, 453, 454, 488.
3. Complete 4 hours of the following:
   VAIll 497R.
4. Complete the following history requirement:
   VAIll 359.
5. Complete one course from the following history requirements:
   ArtHC 304, 306, 310, 315, 317, 320, 325, 330, 335, 340, 345, 350, 355.
   VADes 328, 329.
   VAGD 349.
   VAPho 379.
6. Complete 9 hours from the following supporting courses:
   InDes 410R.
   VADes 496R.
   VAIll 310, 350R, 357, 358, 450R, 494R, 499R.
   VAStu 218, 219, 230R, 328R, 333R.

BFA Photography (66.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following core requirements:
   VA 111, 120, 121A, 132, 134, 138.
2. Complete the following:
   VADes 496R (2 hours minimum).
   VAPho 170, 210, 272, 273, 310, 370, 372, 375, 377R, 474, 478, 488.
3. Complete 5 hours of the following:
   VAPho 497R.
4. Complete the following history requirement:
   VAPho 379.
5. Complete one course from the following history requirements:
   ArtHC 350, 355.
   VADes 328, 329.
   VAGD 349.
   VAIll 359.
6. Complete 10 hours from the following supporting courses:
   BusM 371R.
   Comms 230, 365, 398R.
   TMA 102, 171.
   VAGD 245.
   VAPho 410R.
   VAStu 218, 219, 230R, 351R.

Minor Advertising Design (15 hours)

This minor is intended for advertising majors seeking a background in design.

Minor Requirements

Complete the following:
VAGD 210, 243, 245, 310, 342.
VAStu 103, 203R.

Minor Art (20.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this minor.

Minor Requirements

1. Complete the following:
   VA 111, 120, 121A, 121B, 122.
2. Complete 4.5 hours from the following:
   VA 131, 132, 133, 134, 135, 138.
3. Complete 6 hours from the following:
   VAStu 214, 215, 216, 217, 218, 219.
4. Complete 3 hours of art history or art criticism.

Minor Art Education (21 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this minor.

Minor Requirements

1. Complete the following core requirements:
   VA 121A, 122, 132, 133.
2. Complete one course from the following:
   VAStu 214, 215.
3. Complete one course from the following:
   VAStu 216, 217.
4. Complete one course from the following:
   ArtHC 201, 202, 350, 355.
5. Complete the following:
   VAEdu 324, 377, 439.

Minor Art History and Curatorial Studies (18 hours*)

Minor Requirements

1. Complete the following:
   ArtHC 201, 202.
2. Complete 12 elective hours in art history from 300-level or above courses.

*Hours include courses that may fulfill GE or university requirements.

Minor Theatre and Media Arts Design (18 hours)

This minor is intended for theatre and media arts majors seeking a background in design.

Minor Requirements

1. Complete the following:
   VA 120, 122, 132, 134.
   VAStu 103.
2. Complete 10 hours from the following:
   VA 121A, 121B, 122, 138.
   VADes 210, 220, 221R, 328, 329, 410R.
   VAIll 350R.
   VAPho 270, 272, 273.
   VAStu 214.

Art History and Curatorial Studies (ArtHC)

Undergraduate Courses

111. Introduction to Art History. (3:3:0) Honors also.
Topical approach to art history and appreciation.

201. World Civilization to 1500. (3:3:0)
Survey of Western civilization emphasizing the visual arts from ancient Greece to the Gothic period.

202. World Civilization Since 1500. (3:3:0)
Survey of Western civilization emphasizing the visual arts from the Renaissance to the twentieth century.

203. Survey of Oriental Art and Architecture. (3:3:0)
Art and architecture of China, Korea, Japan, Southeast Asia, and India, considering social, religious, and environmental context of various cultures.

211. Survey of Western Art 1. (3:3:0) Independent Study only.
Art and architecture of the Western world from primitive through medieval.

212. Survey of Western Art 2. (3:3:0) Independent Study only.
Art and architecture of the Western world from Renaissance to contemporary.

300. Art Historical Methodology, Research, and Intensive Writing. (3:3:0) Prerequisite: ArtHC 201, 202.
Necessary skills to research and write in the field of art history.

302. Egyptian Art and Architecture. (3:3:0)
Development of Egyptian art from predynastic through Hellenistic periods, emphasizing contributions to the development of world civilization.

304. Greek Art. (3:3:0) Prerequisite: ArtHC 201 or instructor's consent.
History and appreciation of Greek art, with consideration of formative cultures.

306. Roman Art. (3:3:0) Prerequisite: ArtHC 201 or instructor's consent.
Art and architecture of the Etruscans and Romans.

310. Early Christian and Byzantine Art. (3:3:0) Prerequisite: ArtHC 201 or instructor's consent.
Survey of Christian art in the Roman and Byzantine Empire from ca. 200 to 1453.

315. Early Medieval Art and Architecture. (3:3:0) Prerequisite: ArtHC 201 or instructor's consent.
Art and architecture of Western Europe and Islam from A.D. 500 to 1050.

317. Romanesque/Gothic Art and Architecture. (3:3:0) Prerequisite: ArtHC 201 or instructor's consent.
Major monuments in architecture, sculpture, and painting from the Romanesque and Gothic periods.

320. Italian Renaissance Art. (3:3:0)
Art and architecture in Italy from 1200 to 1580.

325. Northern Renaissance Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Fifteenth- and sixteenth-century art in northern Europe.

329. Renaissance and Baroque Architecture. (3:3:0) Prerequisite: ArtHC 201, 202.
History of architecture in Italy, Spain, France, Germany, Austria, and England, 1400–1700.

330. Southern Baroque Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
History of baroque painting, sculpture, and architecture in Italy, Spain, and France.

335. Northern Baroque Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Baroque painting in Flanders and Holland.

340. Nineteenth-Century European Art. (3:3:0) Independent Study also. Prerequisite: ArtHC 202 or instructor's consent.
Nineteenth-century art in Europe.

345. American Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
American painting and sculpture from colonial through modern times.

350. Modern Art. (3:3:0) Independent Study also. Prerequisite: ArtHC 202 or instructor's consent.
Modern European art and theory, 1900–1945.

353. Twentieth-Century American Art. (3:3:0) W
Survey of painting and sculpture in the United States in the twentieth century.

355. Contemporary Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Critical evaluation of trends in art since 1945.

360. Introduction to Museum and Curatorial Studies. (3:3:0) Prerequisite: ArtHC 201, 202.
Duties of museum professionals while applying museum theory to the practical development of a museum exhibit.

363. English Architecture, 1485–1900. (3:3:0)
English architecture from Tudor through Victorian period.

365. American Architecture. (3:3:0)
Major figures, monuments, and movements in American architecture from colonial period through "Gilded Age."

367. Modern Architecture. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Critical review of roots and evolution of modern architecture.

371. Chinese Art and Architecture. (3:3:0) Prerequisite: ArtHC 201, 202, 203.
Chinese art and architecture from its neolithic origins through the dawn of the modern age. Literary, social, and religious contexts considered.

375. Japanese Art and Architecture. (3:3:0) Prerequisite: ArtHC 201, 202, 203.
Japanese art and architecture from its neolithic origins through the dawn of the modern age. Literary, social, and religious contexts considered.

377. Islamic Art and Architecture. (3:3:0) Prerequisite: ArtHC 201, 202.
Importance of Islamic contributions to world culture from pre-Islamic period through modern times.

380. Northern Mesoamerican Art. (3:3:0) Prerequisite: ArtHC 201, 202.
Survey of art and architecture of Mexico from antiquity to present.

382. Southern Mesoamerican Art. (3:3:0) Prerequisite: ArtHC 201, 202.
Survey of art and architecture of southern Mexico and central America from antiquity to present.

399R. Academic Internship: Museum Internship. (1–8:0:0 ea.) On dem. Prerequisite: ArtHC 300, 9 hours minimum upper-division art history courses, project approval.
On-the-job experience.

490R. Special Topics and Readings in Art History. (1–6:Arr.:Arr. ea.)
Topics of specific student interest, centered on strengths of visiting faculty, BYU Study Abroad Program, or other significant art history projects.

498. Senior Thesis. (3:3:0) Prerequisite: senior standing.
Capstone project tying together major course work. An expansion and refinement of work started earlier in other classes.

499R. Honors Thesis. (1–6:0:0 ea.)

500-Level Graduate Courses (available to advanced undergraduates)

500. Art in Theory: Spectatorship. (3:2:0) F Prerequisite: graduate status.
Review and critique of major theoretical approaches in art history, emphasizing the philosophical relationship between viewer and object.

505. Art in Theory: Language. (3:2:0) F Prerequisite: graduate status.
Review and critique of major theoretical approaches in art history, emphasizing the recent interest in language and semiotics.

510. Art in Theory: Context. (3:2:0) F Prerequisite: graduate status.
Review and critique of major theoretical approaches in art history, emphasizing the space of display, the museum, and the work's social reception.

512R. Studies in Islamic Art. (3:3:0 ea.) Prerequisite: graduate status.
Selected topics in Islamic art.

514R. Studies in Chinese Art. (3:3:0 ea.) Prerequisite: graduate status.
Selected topics in Chinese art.

516R. Studies in Japanese Art. (3:3:0 ea.) Prerequisite: graduate status.
Selected topics in Japanese art.

520R. Studies in Ancient Art. (3:3:0 ea.) F, W, on dem.
Selected topics in Egyptian, Greek, and Roman art.

530R. Studies in Medieval Art. (3:3:0 ea.) F, W, on dem.
Selected topics in early Christian, Byzantine, Romanesque, and Gothic art.

540R. Studies in Renaissance Art. (3:3:0 ea.) F, W, on dem.
Selected topics in Northern and Southern Renaissance art.

550R. Studies in Baroque Art. (3:3:0 ea.) F, W, on dem.
Selected topics in northern and southern baroque art.

560R. Studies in Eighteenth- and Nineteenth-Century Art. (3:3:0 ea.) F, W, on dem.
Selected topics in eighteenth- and nineteenth-century art of Europe and America.

570R. Studies in Modern and Contemporary Art. (3:3:0 ea.) F, W, on dem.
Selected topics in modern and contemporary art of Europe and America.

580R. Studies in Architecture. (3:3:0 ea.) F, W, on dem.
Selected topics in architecture of Europe and America.

590R. Studies in Curatorship. (3:3:0 ea.) F, W, on dem.
Selected topics in curation and the museum.

Graduate Courses

For 600-level courses, see the BYU 2003–2004 Graduate Catalog.

Visual Arts Core (VA)

Required of all majors in the visual arts (except art history), the visual arts core is a prediscipliniary preparation that embraces knowledge and skills from each discipline and underlying principles common to all disciplines. The core is designed to serve students more efficiently by facilitating their progress through the visual arts programs and allowing flexibility in choosing their individual program direction. The core enables students to acquire a basic and broad understanding of the visual arts before engaging in the specific discipline's content and modes of inquiry.

Undergraduate Courses

111. Introduction Seminar. (1:1:0) F Prerequisite: application/acceptance to visual arts program.
Overview of visual arts disciplines, issues, and themes.

120. Composition. (1.5:6:0) F, W, Sp Prerequisite: application/acceptance to visual arts program.
Formal and conceptual elements of design and composition with 2-D and 3-D applications. Readings, writings, and participation in course work exhibitions required.

121A. Drawing: Observational. (1.5:6:0) F, W on blk., Sp Prerequisite: application/acceptance to visual arts program.
Observational and conceptual drawing using a variety of media and methods. Readings, writings, and participation in course work exhibitions required.

121B. Drawing: Spatial. (1.5:6:0) F, W on blk., Sp Prerequisite: application/acceptance to visual arts program.
Spatial systems and conceptual drawing using a variety of media and methods. Readings, writings, and participation in course work exhibitions required.

122. Color. (1.5:6:0) F, W on blk., Sp Prerequisite: application/acceptance to visual arts program.
Exploring color theory and color application.

131. Figure Drawing. (3:4:0) W on blk., Su Prerequisite: VA 111, 120, 121A,B.
Figure study using a variety of media and methods. Readings, writings, and participation in course work exhibitions required.

132. Two-Dimensional Design/Computer. (1.5:4:0) W on blk., Su Prerequisite: VA 111, 120, 121A,B.
Design concepts and theories emphasizing computer applications. Readings, writings, and participation in course work exhibitions required.

133. Three-Dimensional Design. (1.5:4:0) W on blk., Su Prerequisite: VA 111, 120, 121A,B.
Three-dimensional concepts, theories, and issues using a variety of media and processes. Readings, writings, and participation in course work exhibitions required. Fee.

134. Introduction to Camera Techniques. (1.5:4:0) W on blk., Su Prerequisite: VA 111, 120, 122.
Introduction to photography, including camera instruction, seeing photographically, design, using light, filtration and lenses, producing copy work, and color and black and white slide film. No darkroom or computers.

138. Introduction to Digital Imaging. (1.5:4:0) W 2nd blk.; Su
Photography-based digital imaging, utilizing digital cameras, film scanning and printing, computer editing, digital print output, and archiving.

275. Traditional Portrait Photography. (3:3:2) Prerequisite: visual arts core (including 134).
Studio and environmental portraiture as well as traditional approaches to portrait photography, including wedding/bridal. Lab required.

346. Practicum in Graphic Design. (3:6:0) F, W Prerequisite: freshman core, VAGD 210, 245.
Market applications, portfolio preparation, and other aspects of graphic design. Individual portfolio projects designed to develop graphic design skills.

356. Practicum in Illustration. (3:6:0) F, W Prerequisite: VA 111, 120, 121A, 121B, 122, 131, 132, 133, 136; sophomore courses.
Market applications, portfolio preparation, advertising patterns, and other aspects of the illustration business. Individual portfolio projects designed to develop personal illustration skills.

373. Practicum in Photography. (3:6:0) F, W Prerequisite: freshman core, VAPho 270.
Professional portrait studio practices, including lighting, working with people, basic business practices; portfolio preparation, advertising, marketing, etc.

380. Museum Art Education. (3:3:0) F, W Prerequisite: ArtHC 111 or 201; ArtHC 202 or Hum 201 or 202.
The museum as a learning environment; current exhibitions; learning and teaching strategies for collaboration with museum and classroom educator.

Visual Arts Animation (VAAnm)

Undergraduate Courses

160. Introduction to Animation. (1.5:4:0) F, W, Su Prerequisite: pre–animation major status.
Foundational principles and techniques for animation.

260. Storyboarding. (3:4:0) F Prerequisite: acceptance into animation program.
Introduction to visual storytelling.

350R. Gesture Drawing for Animators. (3:6:0) F, W Prerequisite: VA 131.
Drawing humans and animals in motion.

360. Visual Development and Character Design. (3:6:0) F Prerequisite: acceptance into animation program.
Applying design principles for animation.

361R. Animation Studio 1. (3:6:0 ea.) W Prerequisite: foundations portfolio review.
Advanced animation projects.

362. Advanced Animation. (3:6:0) W Prerequisite: VAAnm 160.
Applying advanced animation principles, emphasizing character.

411R. Animation Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of animation.

461R. Animation Studio 2. (3:6:0 ea.) W Prerequisite: BFA acceptance.
Individual advanced animation projects.

494R. Special Problems in Animation. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in animation of special interest.

497R. BFA Animation Final Project. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: BFA advisor's consent.
Advanced individual animation project with minimum guidance showing a high degree of competence.

499R. Directed Studies in Animation. (1–6:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Credit for work experience in animation.

Visual Arts Design (VADes)

Undergraduate Courses

102. Introduction to Interiors. (3:3:0)
Interior design, emphasizing history and development of the American home.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: admission by portfolio.
Work experience evaluated by supervisor and posted on student's transcript.

210. Intermediate Computer Applications. (2:0:2) Prerequisite: visual arts core.
Introduction to computer software programs relative to design disciplines.

310. Advanced Computer Applications. (2:0:2) Prerequisite: VADes 210.
Specific program applications of computers to design disciplines.

328. History of Interior Design and Architecture 1. (3:3:0)
History of interior design, architecture, and furnishings from ancient Egypt to beaux arts movement. French, English, and American design.

329. History of Interior Design and Architecture 2. (3:3:0)
Furniture, interior design, and architecture from Industrial Revolution to present.

384R. Problems in Color. (2:2:2 ea.) Prerequisite: visual arts core.
Specialized applications of color theory.

410R. Computer Applications Studio. (2:0:2 ea.) Prerequisite: VADes 310.
Individual major project using high-end hardware and software.

411R. Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of design.

488. Professional Practices of the Designer. (2:2:0) Prerequisite: BFA acceptance.
Business aspects of the design profession.

489. Portfolio Preparation. (2:1:1)
Final portfolio preparation.

494R. Special Problems in Design. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in area of special interest.

496R. Academic Internship: Professional Internship. (1–6:Arr.:Arr. ea.) Prerequisite: department's and faculty advisor's consent.
Work experience in professional design studio evaluated by supervisor.

497R. BFA Final Project. (1–3:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Advanced individual project with minimum guidance, showing high degree of competence within chosen major.

499R. Directed Studies. (1–6:Arr.:Arr. ea.)

Visual Arts Education (VAEdu)

Undergraduate Courses

324. Foundations in Art Education. (3:3:0) Prerequisite: concurrent enrollment in ScEd 276R.
Theoretical, philosophical, and historical foundations of art education; children's aesthetic development.

326. Art for Elementary Teachers. (2:2:1) F, W, Sp, Su
Preservice preparation designed to help elementary classroom teachers understand the visual arts and develop skills necessary for implementing a discipline-based approach for art education.

339. Computer Application in Art Education. (3:3:0) F, W, Sp
Basic program applications for developing instructional materials in art education.

377. Art History and Studio Methods for Art Educators. (3:3:0) W Prerequisite: VAEdu 324, ScEd 276R; VAEdu 339 or concurrent enrollment.
Theoretical foundations and practical applications for teaching art history and production.

397. Introduction to Art Criticism. (3:3:0)
Theoretical foundations for critical judgment in art and their application in judging works of art.

439. Aesthetics and Criticism Methods for Art Educators. (3:3:0) W Prerequisite: VAEdu 324, ScEd 276R; VAEdu 339 or concurrent enrollment.
Theoretical foundations and practical applications for teaching aesthetics and criticism.

476. Art Student Teaching Seminar. (3:3:0) Prerequisite: concurrent enrollment in ScEd 476R for 12 hours.
Analysis and discussion of art student teaching experience; educational leadership and professional responsibilities of art educators.

478. Art Curriculum Development, Implementation, and Evaluation. (3:3:0) Prerequisite: VAEdu 324, ScEd 276R, 377, 439; VAEdu 339 or concurrent enrollment.
Principles for developing balanced art curriculum; curriculum implementation; evaluation of student progress and art program effectiveness.

494R. Special Problems in Art Education. (1–3:0:0 ea.) Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

578R. Art Education Studio. (3:0:6 ea.) Prerequisite: graduate student status.
Topics include ceramics, drawing, figure drawing, oil painting, aqueous painting, printmaking, crafts, sculpture, and digital art.

594R. Special Problems in Art Education. (1–3:0:Arr. ea.) Sp, Su
Topics dealing with current education issues.

Graduate Courses

For 600-level courses, see the BYU 2003–2004 Graduate Catalog.

Visual Arts Graphic Design (VAGD)

Undergraduate Courses

210. Intermediate Computer Applications to Graphic Design. (2:4:0) Prerequisite: visual arts core.
Introducton to computer software programs specific to graphic design.

243. Basic Typography. (2:0:2) Prerequisite: visual arts core.
Exploring fundamentals and traditions for creating, setting, and designing with type. Solving visual problems with type.

245. Introduction to Graphic Design. (2:2:2) Prerequisite: visual arts core.
Communication problems and solutions through visual interpretations of images, type, and symbols. Comprehensive study of printing, binding methods; manufacture and uses of printing papers.

310. Advanced Computer Applications to Graphic Design. (2:4:0) Prerequisite: VAGD 210.
Specific graphic design computer program applications.

340. Corporate Identity Design. (3:3:3) Prerequisite: VAGD 243 and BFA acceptance.
Current philosophy in corporate identification and trademark design. Design trademarks, logotypes, and identity programs.

341. Packaging Design. (3:3:3) Prerequisite: BFA acceptance.
Packaging and its function in the marketplace; current packaging technology and aesthetics.

342. Advertising Design. (3:2:2) Prerequisite: BFA acceptance.
Particular demands of the advertising world: marketing strategy, editorial and visual concepts, etc. Design ads, collateral materials, campaigns.

343. Publication Design. (3:2:2) Prerequisite: BFA acceptance.
Book and magazine publishing and their special editorial, design, and manufacturing requirements.

344. Poster Design. (3:3:3) Prerequisite: BFA acceptance.
Functions and characteristics of posters; past and current aesthetics.

348. Type as Image. (3:2:2) Prerequisite: BFA acceptance.
Developing unique and expressive letterforms, especially the modification of letters to create new abstract or pictorial images.

349. History of Graphic Design. (3:3:0) Prerequisite: visual arts core.
Survey of visual communication.

357. Sketchbook. (3:6:0) W Prerequisite: VA 120, 121A, 121B, 122, 131; VAIII 250, 350R.
Use of a sketchbook in the process of visual thinking and exploration of ideas, recording visual experience, and development of fundamental drawing skills.

358. Character Design for Illustrators. (3:6:0) F Prerequisite: VA 120, 121A, 121B, 122, 131, VAIII 250, 350R.
Concepts and projects dealing with the interpretation and stylization of human and animal characters applied to children's markets, caricature, animation, and humorous illustration.

410R. Computer Applications Studio for Graphic Designers. (2:4:0 ea.) Prerequisite: VAGD 310.
Individual graphic design project using high-end hardware and software.

411R. Graphic Design Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of graphic design.

441. Senior Graphic Design Studio 1. (3:3:3) Prerequisite: BFA acceptance.
Opportunity for senior class members to work as a group in solving design problems for real clients on major projects.

442. Senior Graphic Design Studio 2. (3:3:3) Prerequisite: VAGD 441.
Continuation of VAGD 441.

443. Special Problems in Graphic Design 1. (3:3:3) Prerequisite: BFA acceptance.
Advanced assignments in graphic design; individual portfolio development.

444. Special Problems in Graphic Design 2. (3:3:3) Prerequisite: BFA acceptance.
Continuation of VAGD 443.

488. Business Practices for Graphic Designers. (2:2:0) Prerequisite: BFA acceptance.
Business aspects of the graphic design profession.

494R. Special Problems in Graphic Design. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in graphic design of special interest.

497R. BFA Graphic Design Final Project. (1–3:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Advanced individual project in graphic design with minimum guidance, showing a high degree of competence.

499R. Directed Studies in Graphic Design. (1–6:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Credit for work experience in graphic design.

Visual Arts Illustration (VAIll)

Undergraduate Courses

210. Intermediate Computer Applications to Illustration. (2:4:0) Prerequisite: visual arts core.
Introduction to computer software programs specific to illustration.

250. Introduction to Illustration Design. (2:2:2) Prerequisite: visual arts core.
Overview of styles, techniques, methods, and materials. Illustrative concepts and problem solving.

310. Advanced Computer Application Illustration. (2:4:0) F, W Prerequisite: VAIll 210.
Specific computer illustration program applications.

350R. Life Drawing. (3:3:3 ea.) Prerequisite: VA 131, 136.
Drawing the figure in modern or historical costume; developing drawing skills, especially relating to the draped figure.

351. Illustration 2. (3:3:3) Prerequisite: BFA acceptance.
Narrative illustration problems emphasizing academic study of the human figure, using various media.

352. Illustration 3. (3:3:3) Prerequisite: BFA acceptance.
Conceptual illustration problems and market applications, using various media.

353. Book Illustration. (3:3:3) Prerequisite: BFA acceptance.
Book cover illustration; narrative problems and applicable markets; related media and skills.

354. Editorial Illustration. (3:3:3) Prerequisite: BFA acceptance.
Magazine illustration; conceptual problems and related markets; applications and media.

357. Sketchbook. (3:6:0) W Prerequisite: VA 120, 121A,B, 122, 131; VAIll 250, 350R.
Using a sketchbook in visual-thinking process: exploring ideas, recording visual experience, and developing fundamental drawing skills.

358. Character Design for Illustrators. (3:6:0) F Prerequisite: VA 120, 121A,B, 122, 131, VAIll 250, 350R.
Concepts and projects dealing with interpretation and stylization of human and animal characters applied to children's markets, caricature, animation, and humorous illustration.

359. History of Illustration. (3:3:0) Prerequisite: visual arts core.
Survey of illustration in visual communication. Emphasis on birth of publishing and "Golden Age" of American illustration.

411R. Illustration Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of illustration.

450R. Painting the Human Head. (3:3:3 ea.) Prerequisite: VAIll 350R and BFA acceptance.
Painting from a live model; unique aspects of portraiture and colors of the human face.

451. Senior Illustration Studio 1. (3:3:3) Prerequisite: VAIll 351, 352, and BFA acceptance.
Individual portfolio development.

452. Senior Illustration Studio 2. (3:3:3) Prerequisite: VAIll 451.
Flexible in nature, featuring various instructors with unique individual skills. Team taught. Advanced assignments in illustration; individual portfolio preparation.

453. Illustration 4. (3:3:3) Prerequisite: VAIll 351, 352; BFA acceptance.
Advanced assignments in illustration. Various instructors with unique skills and market experience.

454. Illustration 5. (3:3:3) Prerequisite: VAIll 351, 352; BFA acceptance.
Continuation of VAIll 453. Advanced assignments in illustration and media.

488. Professional Practices for Illustrators. (2:2:0) Prerequisite: BFA acceptance.
Business aspects of the illustration profession.

494R. Special Problems in Illustration. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in illustration of special interest.

497R. BFA Illustration Final Project. (1–3:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Advanced individual project in illustration with minimum guidance, showing a high degree of competence.

499R. Directed Studies in Illustration. (1–6:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Credit for work experience in illustration.

Visual Arts Photography (VAPho)

Undergraduate Courses

170. Introduction to Black and White Photography. (3:4:4) Prerequisite: VA 134.
Basic camera and darkroom techniques emphasizing black and white film processing and printmaking.

210. Intermediate Computer Applications to Photography. (2:4:0) Prerequisite: visual arts core.
Introduction to computer software programs specific to photography.

270. Introduction to Black and White Photography. (3:3:2) F, Sp Prerequisite: visual arts core (including 134).
Traditional silver-based black and white photography, including monochrome practice, film-developing techniques, basics of fine printmaking, presentation, etc. Darkroom lab required.

272. Introduction to Color Photography. (3:2:3) Prerequisite: VAPho 270.
Basics of making color negatives and transparencies; darkroom techniques in printing from color negatives and transparencies.

273. Advanced Photography. (3:2:3) Prerequisite: VAPho 270.
Camera and darkroom techniques using the zone system for exposure and development control of negatives and prints. Lab required.

310. Advanced Computer Applications to Photography. (2:4:0) Prerequisite: VAPho 210.
Specific photography computer program applications.

370. Classical Portraiture. (3:6:0) Prerequisite: visual arts core, including 134.
Studio and environmental protraiture as well as traditional approaches to protrait photography, including wedding/bridal.

372. Illustration Photography. (3:2:3) Prerequisite: BFA acceptance.
Camera and studio techniques to produce illustrations for advertising layout and other media. Lab required.

375. Editorial Portrait Photography. (3:2:3) Prerequisite: BFA acceptance.
Producing portrait photographs designed primarily for publication in magazines, annual reports, trade publications, newspapers, etc.

376. Editorial Photography. (3:4:4) W Prerequisite: acceptance to BFA photography level.
Use of photography in magazines, newspapers, annual reports, etc. Creating and publishing picture stories.

377R. Advanced Photography Studio. (3:3:3 ea.) Prerequisite: BFA acceptance.
Photography as an exploratory, sensitizing process. Lab required.

379. History of Photography. (3:3:0) Prerequisite: visual arts core.
Origin and development of photographic aesthetics.

410R. Computer Applications Studio for Photographers. (2:4:0 ea.) Prerequisite: VAPho 310.
Individual photography project using high-end hardware and software.

411R. Photography Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of photography.

474. Advanced Location Photography. (3:0:4) Prerequisite: VAPho 372; BFA acceptance.
Advanced techniques of location photography including architecture, annual reports, large-product work, and editorial work. Lab required.

477R. Nature Photography. (3:3:3 ea.) Prerequisite: instructor's consent.
Techniques of professional nature and landscape photography.

478. Fine Art Photography. (3:0:4) Prerequisite: VAPho 272 and BFA acceptance.
Fine art approaches to photography; conceptual, social, and aesthetic values; modern and postmodern values.

488. Professional Practices for Photographers. (2:2:0) Prerequisite: BFA acceptance.
Business aspects of the photographer's profession.

494R. Special Problems in Photography. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in photography of special interest.

497R. BFA Photography Final Project. (1–3:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Advanced individual project in photography with minimum guidance, showing a high degree of competence.

499R. Directed Studies in Photography. (1–6:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Credit for work experience in photography.

Visual Arts Studio (VAStu)

Undergraduate Courses

100. Introduction to Art. (1:1:0)
Basic form, content, and art processes through lectures, demonstrations, and studio and gallery visits.

103. Introduction to Drawing. (2:1:3)
Basic drawing techniques and concepts.

104. Introduction to Sculpture. (2:1:3)
Basic sculpture processes, including clay modeling and stone carving. Fee.

105. Introduction to Ceramics. (2:1:3)
Basic methods and processes of forming and glazing original ceramic objects. Fee.

106. Introduction to Printmaking. (2:1:3)
Basic techniques in etching and woodcut. Fee.

107. Introduction to Oil Painting. (2:1:3)
Basic concepts and techniques of oil painting.

108. Introduction to Watercolor. (2:1:3)
Basic concepts and techniques of watercolor.

109. Introduction to Calligraphy. (2:1:3) Independent Study also.
Basic skills in hand lettering.

200. Studio Techniques for Art History. (3:3:0)
Introduction to art techniques, materials, and practices directed toward art history majors.

203R. Drawing 2. (2:1:3 ea.) Prerequisite: VAStu 103.
Extended work in basic drawing techniques.

204R. Sculpture 2. (2:1:3 ea.) Prerequisite: VAStu 104.
Extended work in sculpture processes, including modeling and carving. Fee.

205. Ceramics 2. (2:1:3) Prerequisite: VAStu 105.
Extended methods of creating original ceramic objects, including glaze mixing, kiln firing, and research techniques. Fee.

206R. Printmaking 2. (2:1:3 ea.) Prerequisite: VAStu 106.
Extended work in etching. Fee.

207R. Painting 2. (2:1:3 ea.) Prerequisite: VAStu 107.
Continuation of VAStu 107.

208R. Watercolor 2. (2:1:3 ea.) Prerequisite: VAStu 108.
Continuation of VAStu 108.

209. Calligraphy 2. (2:1:3) Prerequisite: VAStu 109.
Spencerian alphabet and design. Problems in applying various handmade and transfer alphabets.

214. Aqueous Media Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation in transparent aqueous media.

215. Painting Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation painting.

216. Ceramics Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation ceramics. Fee.

217. Sculpture Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation sculpture. Fee.

218. Intaglio Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation printmaking. Fee.

219. Lithography Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation printmaking. Fee.

230R. Bookbinding. (3:3:0 ea.)
Traditional approaches to hand bookbinding.

321R. Drawing. (3:1:5 ea.) Prerequisite: visual arts core and VAStu 220.
Drawing as a graphic form of self-expression, emphasizing personal statement in response to various experiences and concepts.

322R. Figure Drawing. (3:1:5 ea.) Prerequisite: visual arts core and VAStu 221.
Drawing from the human figure, emphasizing structure and anatomy.

327R. Painting. (3:3:3 ea.) Prerequisite: visual arts core and VAStu 215.
Fundamental concepts and techniques of oil painting.

328R. Figure Painting. (3:2:4 ea.) Prerequisite: visual arts core and VAStu 215, 322, 327.
Fundamentals of figure painting.

333R. Aqueous Media. (3:2:4 ea.) Prerequisite: visual arts core and VAStu 214.
Exploring multiple aqueous media on paper: transparent water color, acrylic, gouache, casein, egg tempera.

349R. Printmaking: Relief/Screen. (3:2:4 ea.) Prerequisite: visual arts core.
Relief and screen printmaking materials and procedures. Fee.

350R. Printmaking: Intaglio. (3:2:4 ea.) Prerequisite: visual arts core and VAStu 218.
Intaglio printmaking, based on traditional and contemporary techniques. Fee.

351R. Printmaking: Lithography. (3:2:4 ea.) Prerequisite: visual arts core and VAStu 219.
Lithography printmaking, based on traditional and contemporary techniques. Fee.

353R. Computer Art. (3:2:4 ea.) Prerequisite: instructor's consent.
Exploring the computer as a tool for visual self-expression.

354R. Craft Processes. (3:1:5 ea.) Prerequisite: visual arts core.
Exploration in crafts using a variety of materials. Fee.

355R. Stained Glass. (3:2:4 ea.)
Methods and processes using leaded glass, copper, foil, and faceted glass. Fee.

356R. Figure Sculpture. (3:1:5 ea.) Prerequisite: visual arts core and VAStu 217, 221.
Modeling the human figure in clay. Fee.

358R. Sculpture. (3:1:5 ea.) Prerequisite: visual arts core and VAStu 217, 220.
Traditional and nontraditional approaches to sculpture. Fee.

359R. Ceramics. (3:2:4 ea.) Prerequisite: visual arts core and VAStu 216, 217.
Designing, throwing, hand forming, decorating, glazing, and firing techniques. Fee.

395R. BFA Seminar. (1:1:0 ea.) F, W Prerequisite: acceptance into BFA program.
Selected contemporary issues involving visiting artists, guest lecturers, video documentaries, discussions, and BFA program information.

398. Readings. (2:2:0) Prerequisite: VA 111.
Directed readings in significant issues and ideas in the visual arts.

440. Business Practices for Artists. (2:2:0) Prerequisite: visual arts major.
Basic business practices associated with managing career in visual arts.

456R. Sculpture Studio. (1–9:Arr.:Arr. ea.) Prerequisite: VAStu 356R or 358R and admission by portfolio.
Advanced study in sculpture: traditional and nontraditional approaches. Fee.

459R. Ceramic Studio. (1–9:Arr.:Arr. ea.) Prerequisite:VAStu 359R and admission by portfolio.
Exploratory experience with advanced methods in ceramics. Research emphasis on clay bodies, glazes, and constructing and operating kilns. Fee.

480R. Advanced 2-D Studio. (3:3:3 ea.) Prerequisite: VAStu 321 or 322R; 350R or 351R; 327R or 333R; 328R (if figure emphasis).
Individual development of art issues in advanced studio environment. Writing a proposal accompanied by a readings list.

494R. Special Problems in Art. (1–3:0:0 ea.) Prerequisite: instructor's consent.

496R. Academic Internship: Professional Internship. (1–6:0:0 ea.) F, W, Sp, Su Prerequisite: visual arts major.

497R. BFA Final Project. (3:0:0 ea.)

Graduate Courses

For 600-level courses, see the BYU 2003–2004 Graduate Catalog.

Visual Arts Faculty

Professors

Barrett, Robert (1982) BFA, U. of Utah, 1973; MA, MFA, U. of Iowa, 1975, 1976.
Barsch, Wulf E. (1974) BFA, Werkkünstschule-Hanover, West Germany, 1968; MA, MFA, Brigham Young U., 1970, 1971.
Beattie, Donna Kay (1989) BSE., Emporia State U., 1963; MA, U. of Missouri, 1985; PhD, U. of Kansas, 1990.
Day, Michael D. (1983) BA, Brigham Young U., 1961; MA, San Jose State U., 1968; EdD, Stanford U., 1973.
Hamilton, Charles Mark (1974) BA, Brigham Young U., 1967; MA, U. of Utah, 1972; PhD, Ohio State U., 1978.
Hull, Richard (1987) BFA, Brigham Young U., 1987.
Johnson, Mark J. (1987) BA, Brigham Young U., 1979; MA, U. of Illinois, 1983; MFA, PhD, Princeton U., 1984, 1986.
Kimball, W. Wayne, Jr. (1984) BA, Southern Utah State Coll., 1968; MFA, U. of Arizona, 1970.
Marshall, Robert L. (1969) BA, MA, Brigham Young U., 1966, 1968.
Peacock, Martha M. (1987) BA, Brigham Young U., 1978; MA, PhD, Ohio State U., 1985, 1989.
Smith, Bruce Hixson (1977) BA, Brigham Young U., 1964; MFA, U. of Utah, 1968.
Telford, John (1990) BA/MFA, U. of Utah, 1988.

Associate Professors

Allen, Von (1984) BA, MA, Edinboro State Coll., 1973, 1976; MFA, Syracuse U., 1983.
Barton, Garold C. (1994) BFA, Brigham Young U., 1989; MFA, Ohio State U., 1994.
Brinkerhoff, Val (1995) BA, Brigham Young U., 1980; MFA, Utah State U., 1987.
Christensen, Brian D. (1993) BFA, Brigham Young U., 1990; MFA, Washington U., 1993.
Haltern, Hagen G. (1978) BFA, Fachhochschule, Cologne, West Germany, 1972; MFA, Kunstakademie, Düsseldorf, Germany, 1976.
Hill, Sherron D. (1981) BS, Weber State Coll., 1965; MA, PhD, U. of Iowa, 1971, 1973.
Ostraff, Joseph E. (1993) BFA, Brigham Young U., 1982; MFA, U. of Washington, 1984.
Pulfer, Adrian (1985) BFA, Brigham Young U., 1988.
Sullivan, Linda (1991) BA, Brigham Young U., 1981; MFA, U. of Utah, 1993.
Taylor, David A. (1978) BA, BA, MA, Brigham Young U., 1972, 1976, 1982.

Assistant Professors

Andersen, Bethanne (1997) BFA, MFA, Brigham Young U., 1976, 1979.
Draper, Bryon (1999) BFA, Brigham Young U., Hawaii, 1990; MFA, Brigham Young U., 1995.
Everett, Peter (2000) BFA, Brigham Young U., 1996; MFA, Pratt Inst., 2000.
Finlayson, Cynthia (1999) BA, MSS, George Washington U., 1974, 1984; PhD, U. of Iowa, 1998.
Moss, LaVelle R. (1987) BS, U. of Utah, 1964; MA, Brigham Young U., 1969.

Instructors

Fullmer, Howard (2000) BFA, Brigham Young U., 1993.
Gillett, Eric (1998) BFA, Brigham Young U., 1991.
Jensen, Heather Belnap (2001) BA, MA, Brigham Young U., 1994, 1997.
Magleby, Mark (1997) BA, Brigham Young U., 1989; MA, Ohio State U., 1992.

Adjunct Faculty

Gray, Campbell (1997) BE, Sydney Coll., Australia, 1982; MLP, U. of New England, Australia, 1986; PhD, U. of Sussex, England, 1994.

Emeriti

Allen, Murray F. (1969) BS, U. of Utah, 1947; MA, Brigham Young U., 1968.
Allen, Phyllis Sloan (1968) BA, U. of California, Berkeley, 1931.
Barrus, Wallace M. (1969) BS, Brigham Young U., 1964; MFA, Utah State U., 1975.
Christensen, James Cal (1976) BA, MA, Brigham Young U., 1967, 1968.

Cindrich, Lawrence A. (1983) BFA, Carnegie Mellon U., 1959; MFA, Cranbrook Academy of Art, 1961.
Dansie, R. E. (Ted) (1972) BA, Brigham Young U., 1972.
Darais, Alexander B. (1954) BS, Brigham Young U., 1948; MFA, Claremont Graduate School, 1952.
Eddington, Keith (1979) BA, MFA, U. of Utah, 1947, 1950.
Gunn, Richard L. (1948) BS, MS, Brigham Young U., 1947, 1950; EdD, Stanford U., 1955.
Johansen, Franz M. (1956) BA, MA, Brigham Young U., 1955, 1960.
Magleby, Francis R. (1959) BS, MS, Brigham Young U., 1950, 1951; EdD, Columbia U., 1967.
Myer, Peter L. (1972) BA, Brigham Young U., 1956; MFA, U. of Utah, 1959.
Raty, Thomas Laine (1963) BS, MS, Brigham Young U., 1950, 1961; EdD, Arizona State U., 1985.
Sipherd, John W. (1976) BS, Utah State U., 1962; MA, California State U., Los Angeles, 1964.
Takasaki, Fred Y. (1961) BA, MA, Brigham Young U., 1953, 1958; MA, U. of Michigan, 1968.
Tippetts, Frank M. (1958) BA, MA, Brigham Young U., 1953, 1962; EdD, Arizona State U., 1968.
Weaver, Max D. (1961) BS, MA, Utah State U., 1949, 1955.

Welsh

See Center for Language Studies.

Western Studies

See Charles Redd Center for Western Studies in History section of this catalog.

Women's Research Institute

Bonnie Ballif-Spanvill, Director
337 SWKT, (801) 422-4609

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Research and Scholarship

The Women's Research Institute seeks to promote the scholarly investigation of female perspectives and experiences in diverse cultural and historical contexts. It provides access to a worldwide network of scholarship through the ongoing collaborative research it directs and its sponsorship of academic conferences and visiting scholars. Research projects focusing on women's unique patterns of development and learning, their viewpoints and contributions, and their involvement in families, religions, and societies throughout the world are created and funded through the institute.

Women's Studies Discipline

The women's studies minor educates students in the findings, theories, and methodologies fundamental to the women's studies field, while fostering critical thinking and superior scholarship. Considering traditional academic discourse from the female perspective allows new insights into our historical and cultural traditions.

Career Opportunities

A women's studies minor enhances and broadens educational and employment opportunities in any discipline or field. The women's studies minor trains students to look at issues and questions from unique perspectives, develop research skills, learn current theory, and deal with gender issues in society. This training prepares students to be more successful in graduate and professional schools, business and industry, and government or community service.

Minor Women's Studies (19 hours)

Minor Requirements

1. Complete the following:
   WS 222, 392R, 492.
2. Complete two courses from the following:
   Engl 396.
   Hist 384.
   MFHD 371.
   PlSc 472.
   Psych 306.
   Soc 367.
3. Complete two elective courses from the following:
   NDFS 424.
   Hlth 450.
   Hist 378.
   MFHD 461.
   Soc 323, 460.
   WS 390R, 499R (1–3 hours).

Women's Studies Courses (WS)

222. Introduction to Women's Studies. (3:3:0)
Survey of scholarship about women's lives; new historical, sociological, psychological, and literary approaches that inform our understanding of women's experience.

390R. Women's Studies Special Topics. (2–3:Arr.:Arr. ea.)
Subjects related to women's studies, including anthropology of gender, Russian women's history, women in the scriptures, British colonial writers, etc.

392R. Women's Studies Colloquium. (0.5:Arr.:0 ea.)
Scholarly findings presented by researchers on topics relating to women's lives and experiences throughout history, across the world, and within ethnic, educational, and economic segments of society.

492. Women's Studies Senior Research Seminar. (3:3:0)
Prerequisite: WS 222.
Synthesis of interdisciplinary studies of women; comparative analysis of methods used in research on women; group or individual senior research papers required.

499R. Independent Research. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Course-related instructional activities or laboratory/field research in women's studies issues.

Youth Leadership

See Recreation Management and Youth Leadership.

Zoology

See Physiology and Developmental Biology section of this catalog.

Division of Continuing Education

399 HCEB
(801) 378-4146

Dean: Richard C. Eddy
Associate Dean: Kenneth W. Anderson
Associate Dean: Wayne J. Lott
Assistant to the Dean—Financial and Administrative Services: Darin R. Oviatt
Assistant to the Dean—Development: Frank Santiago

The purpose of the Division of Continuing Education is to provide educational programs and university services for part-time and off-campus students. These educational opportunities also assist regular daytime students. BYU cooperates with the Continuing Education programs sponsored by the Church Educational System and its components. The same university standards required of regular day students apply to those enrolled through the Division of Continuing Education while they are on campus.

Organization. Continuing Education programs represent both BYU and the Church Educational System, and the department and center descriptions will be distinguished in the material that follows.

Requirements for Enrollment in Continuing Education Classes

Noncredit classes are open to anyone having the desire and the necessary ability.

Credit classes are open to:

1. Matriculated students.
2. Anyone twenty-three years of age or older.
3. Individuals desiring to audit courses.
4. High school students in their junior or senior year who have a 3.0 GPA (may concurrently enroll in selected workshops and seminars if authorized by the University Admissions Committee).

Students who have been suspended from Brigham Young University or any other institution of higher learning for any reason are not eligible to register in Continuing Education credit classes until such suspension is cleared. Independent Study courses are an exception.

Enrollment Limitations. Persons enrolling in credit courses offered by the Division of Continuing Education who are officially admitted to the university can take any courses offered to a maximum of 18 credit hours per semester (9 hours per term). All others, twenty-three years of age and older, who have not been formally admitted to the university are limited to a maximum of 8 credit hours per semester (4 hours during spring or summer term). Contact the Division of Continuing Education for any additional conditions of enrollment.

Student Responsibility. Acceptance in a Continuing Education course *does not* constitute acceptance by BYU or any other university on a degree-seeking basis. It is the student's responsibility to gain admission to the university of his or her choice as a degree-seeking student through the normal procedures. At BYU students may accomplish this through the Office of Admissions.

Note: Students enrolled in the Division of Continuing Education would not be eligible for university employment, housing, or financial aid except for that assistance available to part-time students through the Division of Continuing Education.

Departments and Programs

Evening Classes

Ralph V. Larson, Director
105 HCEB
(801) 378-2872

The Department of Evening Classes' major responsibility is to provide college-level educational opportunities for adults age twenty-three and older. In addition, the department is a service for daytime students who experience scheduling difficulties or prefer the evening sections. Classes contributing to baccalaureate and graduate degrees are offered.

Continuing Education, through its Department of Evening Classes, assists the Semester Away? Let's Talk! (SALT) program, enabling students to complete a full semester away from campus while on an academic internship. Continued progress toward graduation is accomplished through academic internship credits and semester-compliant Independent Study courses.

A schedule of courses is published each semester and is available on request at the Evening Classes Office (122 HCEB). Evening classes are also listed in the daytime class schedule as sections 400–499. Access the Evening Classes home page at *http://ce.byu.edu/ev/*

Independent Study

R. Dwight Laws, Director
206 HCEB
(801) 378-2868

Independent Study is a university "outreach program" that can bring BYU to students anytime, anywhere. Through Independent Study, BYU offers nearly 350 college-level credit courses, providing a practical and flexible solution for university students with scheduling problems and for working students, armed forces personnel, teachers, and others who cannot take all their classes in residence.

Up to 36 semester hours of work completed through Independent Study can be used toward a bachelor's degree from BYU, and courses are also available for teacher recertification. Individual high school–level courses, a full-curriculum high school transcript program, and noncredit courses for personal development and enrichment are also available.

Students may register for an Independent Study course at any time during the year. Catalogs are available without charge and list all the courses available, current fees, and enrollment policies and procedures. Students are given one year to complete a course, although most do so in less time.

Independent Study now has courses on the Internet at *http://e-learn.byu.edu*

Conferences and Workshops

Steven W. Taggart, Director
130 HCEB
(801) 378-3559

The Department of Conferences and Workshops works jointly with the university's colleges, schools, departments, and related

entities in offering several hundred outreach programs per year. A variety of both credit and noncredit programs are offered, including conferences, workshops, symposia, short courses, seminars, association meetings, test-prep courses, and youth camps. These programs use both campus and off-campus facilities in extending university offerings to alumni, the campus community, other adults, and youth.

For a comprehensive listing of courses, visit our Web site at *http://ce.byu.edu/cw/*

BYU Conference Center

Spencer E. Hansen, Manager
2255 CONF
(801) 378-7700

The BYU Conference Center is located east of the Marriott Center and adjacent to the Harman Continuing Education Building. The primary host facility for conference guests on campus, it is especially equipped to provide a favorable learning environment for guests participating in conferences, workshops, training seminars, and other educational programs. University units may sponsor or cosponsor conference center events. When certain qualifications are met, off-campus professional, government, corporate, civic, religious, family, or community organizations may also schedule events. The center is not available to promote a product or service or for other entrepreneurial efforts.

Those interested in scheduling the center are invited to contact the BYU Conference Center.

Travel Study

George J. Talbot, Director,
09 HCEB
(801) 378-3946

Students who wish to enhance their education with experience abroad will want to take advantage of Travel Study programs. Utilizing modern transportation and communication, participants find the world literally at their doorsteps. Horizons are expanded, knowledge is increased, and the mind is challenged as participants study and travel with professional university educators. On-site experience with the cultures and people of other lands truly makes the world BYU's campus. BYU Travel Study programs effectively combine academic, spiritual, and intercultural goals in a unique way. These shorter programs can be an alternative for students who cannot go on Study Abroad or to the Jerusalem Center for Near Eastern Studies. A semester at Nauvoo is offered to undergraduate students.

Educational Travel

A variety of programs visiting the following areas of the world offers optional university credit (1–3 hours):

- Europe
  Scandinavia
  The Middle East, emphasizing Bible lands and Egypt
  Asia
  Australia, New Zealand
  Latin America (Mexico, Central America, South America)
  USA (Church history, American heritage, Alaska)
  Canada
  Africa (Kenya and South Africa)
  Russia
  Nauvoo Semester
  Young Single Adult Tours (18–30) (various destinations)

CES Continuing Education Programs—North

Gary Bauer, Director
295 HCEB
(801) 378-2528

This department provides CES Continuing Education programs for the northwestern United States and western Canada. Primary programs include Know Your Religion, Scripture Seminars, Best of Especially for Youth, and other religious education.

CES Continuing Education Programs—Utah and the East

Frank Santiago, Director
299 HCEB
(801) 378-6216

This department provides CES Continuing Education programs for the eastern United States, eastern Canada, and Utah. Primary programs include Know Your Religion, Scripture Seminars, Best of Especially for Youth, and other religious education. The department also administers all Adult Religion Classes in the United States and Canada.

CES Continuing Education Programs—South

R. Neil Carlile, Director
297 HCEB
(801) 378-7380

CES Continuing Education—South annually provides more than 500 religious education programs for adults and youth throughout the seven-state geographic region of Arizona, western Arkansas, California, Nevada, New Mexico, Oklahoma, and Texas. The programs are designed to be spiritually strengthening, intellectually enlarging, and character building and to foster lifelong learning and service. The primary programs offered are Best of Especially for Youth, the Know Your Religion lecture series, and Scripture Seminars.

In addition, the department organizes Campus Education Week, which has been held at BYU—Provo since 1922. Featuring over 1,000 classes, this one-week program serves approximately 25,000 students coming from each of the United States and many other countries. Broadcasts of the program are available by radio, television, satellite, and the Internet and reach an international audience.

CES Continuing Education Youth and Family Programs

Gregory M. Tanner, Director
164 HCEB
(801) 378-3817

Especially for Youth, youth conferences, and other enrichment programs are offered to youth and adults by CES Youth and Family Programs, both on the BYU campus and at localities nationwide. More than 60,000 participants are served, coming from virtually every state and province in the United States and Canada and from several foreign countries.

Centers for Continuing Education

Sensing the obligation of the Church university to provide educational opportunities in harmony with LDS standards for persons living away from Provo, the BYU Board of Trustees has established Continuing Education centers to offer educational programs to people in outlying areas. See the Graduation Requirements section of this catalog for residence requirements. Continuing Education centers represent both BYU and the Church Educational System in their program offerings.

BYU—Idaho Center for Continuing Education

Ronald W. Campbell, Dean
BYU—Idaho
Rexburg, ID 83460-8011
Telephone (208) 496-1040
and

1776 Science Center Drive
University Place
Idaho Falls, ID 83405
Telephone (208) 523-4682

This center provides BYU credit classes throughout Idaho, cooperating with other adult and Continuing Education programs.

BYU Salt Lake Center for Continuing Education

Lee J. Glines, Director
3760 South Highland Drive, Suite 200
Salt Lake City, UT 84106
Telephone: (801) 273-3434
Internet: http://ce.byu.edu/sl/slc.htm

As the continuing education arm of the university in the Salt Lake Valley, the BYU Salt Lake Center offers courses through colleges and departments of the university. Most classes are held at night, making it possible for full-time and part-time students to take many of their required courses as well as general education and elective courses in Salt Lake City. Register for BYU Salt Lake Center classes by using the online registration screens on Route Y or in person at the center.

Students not admitted to Brigham Young University are welcome to take classes at the BYU Salt Lake Center provided they have earned a high school diploma (or passed the GED), are willing to live by the CES Honor Code and the BYU Dress and Grooming Standards, and have been cleared for enrollment at the center.

Former BYU students (over two years ago) or other individuals at least 23 years of age may pursue the bachelor of general studies degree through the BYU Salt Lake Center. For admission and program details, see the Bachelor of General Studies section below.

The executive MPA (Master of Public Administration) program is offered at the center, allowing students to pursue a master's degree by attending classes at night each week while continuing to work during the day.

Professional development courses, a certification program in family history, and personal enrichment courses are also offered at the BYU Salt Lake Center.

Class schedules for each semester or term are available at the Web address noted above, at the BYU Web site, or on online registration system screens. Print versions can be obtained by contacting the BYU Salt Lake Center or picking them up at the information desk in the Wilkinson Student Center or the Smoot Administration Building. BYU Salt Lake Center Classes are also listed in the regularly printed BYU class schedules.

Bachelor of General Studies Program (BGS)

Ellen Allred, Director
315 HCEB
(801) 378-4351, toll free 888-298-3137

The bachelor of general studies (BGS) program offers adult students who are unable to attend BYU an opportunity to complete their bachelor's degrees. Although it is intended primarily for former BYU students who have been away from the university for some time and who are not able to return, the program is also available to other qualified students who can meet the 30-credit-hour BYU campus residency requirement, abide by the Church Educational System Honor Code, and receive an annual ecclesiastical endorsement. This program is not available to current BYU continuing day students.

Admission to Degree Program

Admission is by completion of the admissions procedure through the Bachelor of General Studies Program. The application fee is $25. The BGS program is open to all students who meet the following criteria:

1. If a former BYU student, have been away for more than two years.
2. If have never attended BYU, be at least 23 years of age.
3. Have never completed a bachelor's or higher degree.
4. Be in good standing at all universities attended.
5. Have a 2.0 or higher BYU and cumulative GPA.
6. Will abide by the Church Education System Code of Honor and receive an annual ecclesiastical endorsement.
7. If not a native English speaker, have passed the TOEFL exam. A minimum score of 173 on computer-based and 500 on paper-based exams is required.
8. Have successfully completed the StDev 100 course (1 credit hour Independent Study course taken after provisional acceptance into program).
9. Have been approved by the BGS admissions committee.

The Discipline

The bachelor of general studies degree is a flexible, external program that uses the same BYU curriculum offered on campus and requires the same general education, religious education, and campus residency as on-campus degrees. Up to 90 of the required 120 credit hours may be earned through Independent Study. The major is general studies, with an emphasis in one of eight areas of study. The emphasis adds a measure of specialization and can be completed in one of the following areas: American Studies, English and American literature, family history, family life, history, management, psychology, or writing.

Students may earn only one emphasis and do not have the option of creating custom-made areas of study. However, within the number of general electives available, students can utilize credit previously earned in a former major or choose to take courses in a particular concentration.

The BGS is a fully accredited bachelor's degree from Brigham Young University. Students pursue this program for a variety of reasons. Some desire a sense of accomplishment—to complete a degree they began years ago. Others are looking for career advancement or to eventually pursue a postgraduate degree.

Graduation Requirements

To receive a bachelor's degree a student must fill three groups of requirements: (1) general education requirements; (2) university requirements; and (3) major requirements.

General Education Requirements

Students should contact their college advisement center for information about general education courses that will also fill major requirements.

Languages of Learning

Precollege Math (zero to one course) (or Math ACT score of at least 22)	0–3.0 hours
First-Year Writing (one course)	3.0
Advanced Writing (one course)	3.0
Advanced Languages/Math/Music (one to four courses)	3–20.0

Liberal Arts Core

Biological Science (one to two courses)	3–6.0
Physical Science (one to two courses)	3–7.0
American Heritage (one to two courses)	3–6.0
Wellness (one to three courses)	1.5–2.0
Civilization (two courses)	6.0

Arts and Sciences Electives

Arts and Letters (one course)	3.0
Natural Sciences (one course)	3–4.0
Social and Behavioral Sciences (one course)	3.0

Note 1: For a complete list of courses that will fill each GE category, see the General Education section of the current class schedule.

Note 2: Additional information about general education requirements can be found in the General Education section of the current class schedule or this catalog.

Minimum University Requirements

Religion 14.0
Residency 30.0
Hours needed to graduate 120.0
Cumulative GPA must be at least 2.0.

Note: See the Graduation section of this catalog for more information.

Major Requirements

Complete the major requirements listed under one of the following undergraduate degree programs.

Undergraduate Programs and Degrees

BGS Bachelor of General Studies
Emphases
American Studies
English and American Literature
Family History
Family Life
History
Management
Psychology
Writing

Students should see the BGS office for help or information concerning the undergraduate programs.

General Information

To earn a bachelor of general studies degree, students must complete the following requirements:

1. A minimum of 120 semester hours of earned credit, which breaks down as follows:
   StDev 100 Independent Study course ..... 1 hour
   General education ..... 34.5–61.5 hours
   Religious Education ..... 14 hours
   Emphasis requirements ..... 30 hours
   StDev 490 Independent Study course ..... 1 hour
   General electives ..... 10–40 hours
2. 30 hours of BYU campus residency
3. 40 credit hours of 300-level and above courses, including 15 hours in the emphasis.

The following policies also apply:

1. A minimum of 10 hours in the area of emphasis must be completed through BYU **after** formal admission to the BGS program.
2. Students must earn a minimum 2.0 BYU grade point average and a minimum 2.0 cumulative grade point average.
3. The program must be completed in eight years (or fewer).

BGS course and credit requirements can be filled in the following ways:

Prior Courses and Credits Transferred into the Program

1. Credits earned previously through BYU.
2. Credits earned previously at accredited colleges and universities.

Courses and Credits Earned After Admission to the Program

Note: All emphasis courses taken after admission to BGS must be BYU courses.

1. Courses completed through BYU Independent Study.
2. Courses completed at the BYU Salt Lake Center.
3. Courses completed through BYU Evening Classes.
4. Courses completed at BYU during spring and summer terms.
5. A limited number of preapproved transfer credits from accredited colleges and universities to fill general education and/or general elective requirements.

The 30-hour BYU campus residency requirement may be filled in the following ways:

1. Courses taken previously at BYU.
2. Courses taken at the BYU Salt Lake Center.
3. Courses taken through BYU Evening Classes.
4. Courses taken at the BYU Jerusalem Center, Joseph Smith Academy (Nauvoo Center), and other Study Abroad centers.
5. Regular BYU courses taken on campus during spring and summer terms.
6. Courses taken at BYU—Idaho (formerly Ricks College), BYU—Hawaii, or LDS Business College that are accepted by BYU as transfer credit (up to 15 hours).
7. Courses taken at an LDS institute of religion that are accepted by BYU as transfer credit (up to 10 hours).

Combined credits earned at BYU—Idaho (formerly Ricks College), BYU—Hawaii, LDS Business College, and LDS institutes of religion may not exceed 15 hours.

BGS General Studies: American Studies Emphasis

(32 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   Econ 110.
   Hist 220, 221.
   PlSc 110.
3. Complete 18 hours from the following:
   AHtg 100.
   Engl 293, 336, 361; 362, 363.
   Geog 450.
   Hist 364, 378, 400.
   PlSc 316, 321.

   BYU campus courses as follows:
   All American Studies courses.
   Art history and curatorial studies dealing with American art and architecture.
   English courses dealing with American literature.
   History courses dealing with American history.
   Native American Studies.
   Political science courses dealing specifically with the American political system and thought.
   Humanities courses dealing with American humanities.
4. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill GE or university requirements.

BGS General Studies: English and American Literature Emphasis (32 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   Engl 251.
   And complete two courses from the following:
   Engl 291, 292, 293.
3. Complete 18 hours from the following:
   Engl 333, 336, 350, 359, 361, 362, 363, 366, 374, 375, 382, 385, 395R (section 1), 420.

   BYU campus courses as follows:
   All English courses dealing with English and American literature.
4. Complete the following as the last course in the emphasis:
   Engl 495 (literature section).
5. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill GE or university requirements.

BGS General Studies: Family History Emphasis (32 hours)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. In collaboration with a BGS advisor, select a geographic area of interest (i.e., United States, New England, Latin, British, European, etc.) and select options that correspond to that area.
3. Complete the following introductory course:
   Hist 400.
4. Complete one of the following social history courses:
   Hist 319, 378.
5. Complete one of the following handwriting courses:
   Germ 490R (section 3).
   Hist 390R (section 1), 421.
6. Complete two of the following area source courses:
   Hist 401, 402, 403, 404, 409R (section 1), 411, 413, 414, 415.
7. Complete one of the following area history courses:
   Hist 220, 252, 322.
   Geog 450.
8. Complete 6 hours from the following elective courses (including any courses not used for core above):
   Engl 220.
   Hist 432, 480, 481R, 496R.
   RelC 393R (section 6).
9. Complete the following two courses as the last courses in the emphasis:
   Hist 433, 482.
10. Complete the following capstone course:
    StDev 490.

Recommended

RelC 261.

BGS General Studies: Family Life Emphasis (32 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   MFHD 160, 210, 350.
3. Complete one course from the following:
   MFHD 301, 302, 340.
4. Complete 18 hours from the following elective courses:
   CPSE 515R (section 2 or 10).
   ElEd 340, 515R (section 1 or 12), 533.
   Engl 420.
   Hlth 370, 466.
   Hist 319, 378, 400, 432, 433.
   NDFS 100.
   Psych 306, 320, 321, 322.
   ScEd 515R (section 34).

   BYU campus courses as follows:
   All marriage, family, and human development courses.
5. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill GE or university requirements.

BGS General Studies: History Emphasis (32 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   Hist 201, 202, 220, 221.
3. Complete 18 hours from the following (at least one course must be chosen from each of three of the four following geographic areas):
   a. Asia or the Near East
      Hist 231, 340, 341.
      NES 398R (section 1).
   b. Europe
      Hist 319, 322, 323, 331.
   c. Latin America
      Hist 252.
   d. United States
      Hist 364, 373, 378, 400.

   BYU campus courses as follows:
   All history courses.
4. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill GE or university requirements.

BGS General Studies: Management Emphasis

(32 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following pre-core courses:
   ISys 100.
   MCom 100.
3. Then complete the following core 1 courses:
   Acc 200.
   Econ 110.
   Stat 221.
4. Next complete the following core 2 courses:
   BusM 300, 340.
   MCom 320.
   OrgB 320, 400.
5. Then complete any two courses from the following:
   Acc 210, 241.
   BusM 430, 496R.
   ManEc 300, 453.
   OrgB 327, 347.
6. Complete the following capstone course:
   StDev 490.

Note 1: At least four 300-level or above courses (either 11 or 12 credit hours) must be BYU courses.

Note 2: Emphasis requirements must be filled with credit less than 15 years old.

Note 3: Computer proficiency classes must be passed with a B or better grade.

*Hours include courses that may fulfill GE or university requirements.

BGS General Studies: Psychology Emphasis

(32 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   Psych 111, 301.
   And complete two courses from the following:
   Psych 320, 321, 322, 341, 342, 350.
3. Complete 17 hours from the following (including any courses not used for core above):
   Anthr 101.
   Psych 170, 240, 306, 330, 358, 359, 361, 365, 370.
   Any core course not used above.

   BYU campus courses as follows:
   Any BYU course in psychology may be used to satisfy the emphasis elective requirement.
4. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill GE or university requirements.

BGS General Studies: Writing Emphasis (32 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   ELang 322.
   Engl 218R.
   One advanced writing course (beyond that taken to fill the general education requirement) from the following list:
   Engl 312, 313, 314, 315, 316.
   MCom 320.
3. Complete 18 hours from the following:
   Comms 377.
   ElEd 515R (section 6).
   Engl 220, 318R, 319R, 320.
   Hist 432, 433.
   IP&T 515R (section 8).
   TMA 251.

   BYU campus courses as follows:
   BYU campus courses dealing with writing or the teaching of writing under English, theatre and media arts, communications, or foreign languages may also be used to satisfy the emphasis elective requirements. Additional GE Advanced Writing courses (Engl 312, 313, 314, 315, 316, and MCom 320) may *not* be used to satisfy the emphasis elective requirements.
4. Complete the following as the last course in the emphasis:
   Engl 495 (creative or professional writing section)
5. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill GE or university requirements.

Services Available on Campus

Academic Support Office

2500 WSC
(801) 422-2723
E-mail: academic_support@byu.edu

The primary purpose of the Academic Support Office is to promote students' academic success and assist those experiencing difficulty. Programs involve faculty cooperation, policy development, student contact and counseling, research, and remedial or preventive activities.

Students with deficient academic standing are notified following each semester or term of attendance. This notification and the follow-up contact program are positive in nature and are intended to increase students' academic effectiveness and help them attain their educational goals.

Specialized counseling and referral services are provided by personnel in the Academic Support Office. Faculty members may request information about the academic status of a student enrolled in one of their classes for the purpose of assisting the student, as well as materials to improve the student's study skills. Teachers are also encouraged to refer students who show academic deficiencies to the Academic Support Office for help.

See the Academic Standards section at the front of this catalog for details of BYU's academic standards.

Alumni Association

Background

The Alumni Association was organized in 1893 to promote the general welfare of Brigham Young University. Today it serves more than 325,000 alumni and provides several valuable services and programs for students still at the university.

Membership Prerequisites

All graduates and former students with 24+ credits are eligible for membership in the Alumni Association. There are no dues or membership drives; the association conducts solicitation for contributions to BYU and special projects.

Services to Students

Services to students on the campus include the college-related Student Alumni Relations Committee, BYU Alumni Association Replenishment Grants (for students), meeting facilities in the Alumni House, the commencement checklist for graduates, and operation of the Student Alumni Association.

Services to Alumni

Services to alumni include many on-campus programs during Homecoming and commencement and other times during the year. Alumni have access to bookstore, library, and physical education facilities; they can receive counseling and job placement assistance; and they can get discounts at select BYU events by using a BYU Alumni Membership benefits card, which is available at the Alumni House. Other benefits include life, health, auto, and home insurance programs; access to an alumni directory; BYU and other merchandise on the Web site; and use of the Aspen Grove Family Camp behind Mt. Timpanogos. Graduates also receive the *BYU Magazine*.

Off-campus, BYU has an active chapters program with more than 100 chapters worldwide. These organizations are designed to reconnect alumni with one another and enlarge their ties to BYU. This community of alumni meet for education programs, firesides, programs, receptions, and other activities, including raising Replenishment Grants money for potential students in their chapter boundaries.

Information

For informatin about these and other benefits, contact the Alumni Association, Alumni House, 133 ALUM, (801) 422-4663 or 1-800-437-4663, or visit the alumni Web site at *alumni.byu.edu/*.

Bookstore

3982 WSC, Provo, UT 84602-7904
Information: (801) 422-2400 (hours, information, sales promotions)
Receptionist: (801) 422-2552
Fax: (801) 422-0061
E-mail: bookstore@byu.edu
Internet: www.byu.edu/bookstore and www.byubookstore.com

The BYU Bookstore is owned and operated by Brigham Young University and is a retail business with responsibilities unique to the university and its worldwide campus. The main purpose of the Bookstore is to provide course materials to students. In addition, at the end of each semester the Bookstore buys back used textbooks needed on campus for the following semester.

Augmenting the Textbook Department are fourteen other departments within the Bookstore that sell nonacademic items. These departments have evolved in response to changes and demands within the university's population. The BYU Bookstore's Web site provides access to Bookstore information and an ever-expanding merchandise selection.

Bookstore Hours

Monday–Friday	7:50 a.m. to 6:00 p.m.
Saturday	10:00 a.m. to 6:00 p.m.

Twilight Zone Convenience Store Hours

Monday	7:30 a.m. to 7:00 p.m.
Tuesday–Friday	7:30 a.m. to 9:30 p.m.
Saturday	9:30 a.m. to 6:00 p.m.

Campus Life

University Accessibility Center

1520 WSC
(801) 422-2767
tty: (801) 422-8984
Fax: (801) 422-0174
E-mail: uac@byu.edu
Internet: http://www.byu.edu/stlife/campuslife/uac

The purpose of this office is to assure that students with disabilities are provided access to university programs. A variety of services and extensive information is available.

Students with mobility impairments and chronic illnesses are encouraged to seek help in ensuring accessibility to classes and other accommodations. Deaf and hard of hearing students may obtain the services of qualified sign language interpreters, assistive listening devices, and notetakers. Students with visual impairments may have the assistance of volunteer readers, volunteer notetakers, library lockers, study rooms, VisualTeks, taped textbooks, braille writers, and an adapted computer with enlarged characters and speech synthesis. Other appropriate academic accommodations are available as needed.

Services for students with learning disabilities, attention-deficit /hyperactivity disorders, or qualifying psychiatric disabilities include educational assessment, educational/learning advisement, and, as needed, classroom or curriculum accommodations. In addition, help is offered in determining appropriate class loads and preparing for a career.

Students with a disability may contact the office Monday through Friday, 8–5 p.m., (801) 422-2767 v/tty, to schedule an appointment with a counselor.

Women's Services and Resources

1520 WSC
(801) 422-4877

Women's Services and Resources is a comprehensive support and referral source for all women on the BYU campus. Individual help in utilizing needed services and programs sponsored by the WSR, campus departments, and community agencies is furnished. Specific information and support is provided for nontraditional students.

Campus Visits

Students desiring to visit campus are encouraged to schedule a tour through the Office of School Relations—Campus Visits, Visitors Center (VCTR), (801) 422-4431. Tours are tailored to the individual student's needs, and appointments with advisement centers can be arranged as requested. Please schedule tours at least two weeks prior to your campus visit.

Comprehensive Clinic

M. Gawain Wells, Director
244 TLRB,
(801) 422-7759, (801) 422-7758

The Comprehensive Clinic is a training and research center that houses several of the clinical training programs of the university. These include clinical psychology, marriage and family therapy, social work, speech-language pathology, and LDS Family Services. Available to community people and BYU families, services of the Comprehensive Clinic include:

1. Counseling for depression, anxiety, low self-esteem, strong fears, marital discord, divorce adjustment, child behavior and family problems, premarital concerns, sexual dysfunction, adoption, foster care, and unwed mothers.
2. Speech disorders and voice disorders.
3. Evaluation of hearing loss, adequacy of hearing aids, and physical health status.

Depending on the services provided, fees may be charged. Family size and income, university affiliation, equipment utilized, and other factors are considered in the fees, which range from no charge to full professional fees.

Computers

Students who are considering the purchase of a personal computer should note the following information:

BYU offers a discount on the purchase of various computer hardware and software products. These educational discounts are available to registered students, faculty, and staff. (Some vendors do require full-time status.)

For specific information please contact the Bookstore, (801) 422-7119.

Counseling and Career Center

Ronald K. Chapman, Director
2510 WSC
Telephone: (801) 422-4007
Fax: (801) 422-8184
E-mail: counseling_career@byu.edu

The Counseling and Career Center, a department of Student Life, supports Brigham Young University's mission to help students realize their full potential. It is recognized that reaching such potential involves growth and development in emotional, spiritual, social, and physical areas as well as in the intellectual area. As students experience the challenge of a university education, they often encounter problems in one or more of these areas that can be disruptive to their happiness and progress in school. The professionally trained staff at the Counseling and Career Center offers students a variety of services to help solve such problems when they occur (see below).

Academic Support

2500 WSC
(801) 422-2723
E-mail: academic_support@byu.edu.

Academic counseling is available for students who are experiencing difficulty with their studies. This counseling includes help in working through and overcoming obstacles to successful academic performance. Information about the university's academic standards, a student's academic standing, or help with learning problems is available at this office as well. (See also Academic Standards in the front of this catalog.)

Career and Learning Information Center

2590 WSC
(801) 422-2689

Printed, audiovisual, and computer- generated information about career options and learning skills are available in the Career and Learning Information Center (CLIC). These materials provide useful information for making educational and career decisions and for acquiring skills needed in the academic setting.

Career Placement Services

2410 WSC
Telephone: (801) 422-3000
Fax: (801) 422-3444

Career Placement Services assists BYU students and alumni from all colleges, departments, majors, and class years with their job and internship preparation and searches.

Students who register gain access to many valuable services, including individual and group advisement, on-campus student interviews with employer representatives, and information about specific job and internship opportunities submitted by employers from business, industry, education, and government. An excellent online database system (eRecruiting.com) has been added that allows students to register, set up profiles, and prepare and send documents to employers, as well as to research employers and check interview schedules.

University Advisement Center

2500 WSC
(801) 422-3826
E-mail: open_major@byu.edu

The University Advisement Center at BYU serves (1) the students who have not yet decided on their academic major and (2) those students whose interests and abilities do not match the major they have already chosen. The services of the center include help in selecting classes, meeting general education requirements, and deciding upon majors. **All students who are undecided about a major,** whether coded *open major* or not, are welcome to use the many services and resources available to help them make an informed decision about a career or major. Students who have

already chosen a major but who are not finding it to be a good match with their abilities and interests are also encouraged to work with University Advisement.

Personal and Career Counseling Services

1500 WSC
Telephone (801) 422-3035
Fax: (801) 422-5921
E-mail: counseling@byu.edu,

Full-time and three-quarter-time day students can receive assistance in learning to cope with personal problems that interfere with their education and with career decision making. Counseling is provided by professional counselors who operate within established limits of confidentiality. Without written permission from the student, personal information is not released to any third party.

Individual and group counseling services are oriented toward short-term intervention to help students surmount obstacles to a successful academic experience. Stress management, including biofeedback training, is also offered as part of the counseling services.

Career services are available to help students explore the career process, including information and counseling about academic majors, occupational interests, and transitions to the world of work. Interest inventories, information banks, computer networking, workshops, and student development courses are available to assist students in making decisions about career offerings.

Testing Services

2548 WSC
(801) 422-2688

Tests and inventories are available to help students acquire personal information about career interests, learning styles, emotional adjustment, and personality. Most of the tests and inventories require a referral from a counselor, advisor, or class instructor to ensure an appropriate interpretation and availability of resources. Modest fees are charged for most tests.

Workshops

2590 WSC
(801) 422-2689

A variety of workshops are offered each semester to help students improve their academic, social, and interpersonal skills. Topics such as test taking, note taking, time management, stress management, choosing a major, self-awareness, and assertiveness are addressed. Printed self-help materials used in the workshops are available.

Dining Services

Dean A. Wright, Director
180 SASB
(801) 378-4935
E-mail: dining@byu.edu
Internet: www.byu.edu/dining/

BYU Dining Services is nationally recognized as a leader in collegiate food service programs, serving an average of 30,000 meals daily. Options range from full-service dining to grab-and-go meals. The **Skyroom Restaurant,** on the sixth floor of the WSC, offers full-service dining weekdays for lunch and a Friday evening buffet. The **Cougareat Food Court,** on the main level of the WSC, includes choices such as Taco Bell Express, Pizza Hut, and Subway in addition to grill items, salad and soup, Asian and Italian selections, grab-and-go, pastries and sweets, and traditional meat and potatoes. The **Museum Café,** in the Museum of Art, features specialty sandwiches, soups, desserts, and beverages. The **Marketplace Café** in the atrium of the Tanner Building provides an old world marketplace and café featuring custom-made salads, a panini grill, and much more. The **Morris Center** and **Cannon Center** cafeterias are located at Deseret Towers and Helaman Halls, respectively, and provide students and guests alike buffet-style all-you-care-to-eat selections for every meal. Menus and hours for each area are posted on the Web. The **Creamery,** a dairy outlet and convenience store; the **Creamery on Ninth,** a full-service grocery with a 1950s-style ice cream counter and grill; and **Take-Out Catering,** a carry-out service for all food products produced at BYU, are located at the northeast corner of campus. **Easy Pickins** offers a lunch-time, on-campus delivery service. **BYU Catering** can provide refreshments for a small group or a complete meal for thousands. Tomassito's Pizza is also available for free delivery campuswide.

The Signature Card is welcomed in most Dining Services locations.

Equal Opportunity Office

Melissa Flores, Manager
D-282 ASB
(801) 422-5895

Brigham Young University does not allow unlawful discrimination based on race, color, national origin, religion, sex, age, veteran status, or disability in the academic or employment setting. This includes unlawful sexual harassment, which is a violation of university standards as well as state and federal laws and may be considered grounds for discipline. Persons who believe they have been unlawfully discriminated against or unlawfully sexually harassed should contact the Equal Opportunity Office.

Freshman Year Office

Clark D. Webb, Associate Dean
120 HRCB,
(801) 422-4243
E-mail: frorientation@byu.edu

The Freshman Year Office is charged with coordinating all university efforts that have an impact on new students. In support of the mission of Undergraduate Education, the Freshman Year Office has the primary purpose of coordinating and strengthening programs aimed at freshmen throughout the university. To this end it collects data, reviews literature, examines current and proposed programs, and collaborates with other units in an effort to improve the experiences encountered in a freshman's first year of studies. Major initiatives at present are Freshman Academy and the leadership of New Student Orientation (NSO), a collaborative effort of several campus units.

Office of Information Technology

Kelly J. Flanagan, Information Technology Vice President and CIO
C-366 ASB
(801) 422-3142

Kelly C. McDonald, Assistant Information Technology Vice President
246 MB
(801) 422-5025

The Office of Information Technology offers a variety of products, services, and support to meet the technology needs of the campus community. Following are a few examples:

- *Route Y:* AIM, Post Office, Blackboard, tuition billing and payment, Testing Services, scholarship application, the Student Handbook, and the BYU Telephone Directory are some of the numerous campus applications available to students.
- *Network Access:* Computer labs, offices, resident halls, and public ports receive high-speed access to BYU's network, e-mail, and the World Wide Web.
- *Computer Labs:* Open computer labs are available with basic applications such as MS Office, an Internet browser, and printers.
- *Computer Rental:* Refurbished computers preloaded with software are available for student rental.

- *Media Equipment Delivery:* Students needing equipment, such as VCRs, video projectors, etc., for classroom presentations may place orders through their class instructor.

For more information about the above products or other Office of Information Technology products, see our Web site at *http://it.byu.edu*, or call (801) 378-4000.

Multicultural Student Services

1320 WSC
(801) 422-3065
Internet: http://campuslife.byu.edu/mss

Office Management

Lisa M. Muranaka, Director
James Slaughter, Assistant Director/Scholarship Coordinator
Ryan John Koch, Office Manager

Multicultural Student Services Staff

Lucky Fonolmoana, Multicultural Counselor/Career Training Coordinator
Ann Marie Lambert, Multicultural Counselor/SOAR Coordinator
Lupe Pi'ena, Multicultural Coordinator/One Voice Coordinator
Lynette Simmons, Multicultural Counselor/Publications Coordinator
LaVay Talk, Multicultural Coordinator

Services Available to Students

Multicultural Student Services is a unique team of multicultural specialists who value the total development of the multicultural student within the aims of a BYU education. The staff seeks to develop a BYU environment of "fellow citizenry" where multiculturalism can flourish: "Ye are no more strangers and foreigners, but fellowcitizens" (Ephesians 2:19).

Multicultural Counseling

Multicultural Student Services is an available support system that helps multicultural students to be successful in the university community. Counselors take advantage of every opportunity to assist the students and help them discover services on campus that will further their academic, social, and spiritual success.

Multicultural Scholarships

For students interested in applying for scholarships, an admission application must be completed. Applications are available on the Web at *http://ar.byu.edu/admissions*. A separate scholarship application must also be completed at *http://ar.byu.edu/dept_scholarships/application* using the comprehensive application form.

Career Training

The simultaneous development of employment skills with increased academic proficiency is highly valued by the MSS Office. Career training provides this cocurricular development.

On-Campus Education

Because multicultural diversity contributes positively to the development of students, staff, faculty, and the community, students are valued for what they bring culturally to campus. Special programs are designed to awaken students to a sense of value and self-worth.

Publications

Students report on campus interests, activities, and issues in the *Eagle's Eye*, a multicultural student magazine published twice a year. The publication has a national circulation list that includes alumni, universities, businesses, and a wide range of minority organizations.

Recruitment

Brigham Young University values diversity and seeks to enrich the campus environment with students from diverse cultural backgrounds. The MSS Office actively recruits multicultural students who are spiritually, academically, and socially prepared to enjoy and contribute to the campus community. In coordinating with the Admissions Office and the Office of High School and College Relations, the MSS Office encourages prospective multicultural students to prepare for and seek opportunities in higher education.

Preprofessional Programs

Students can complete preprofessional study at BYU before professional academic training here or elsewhere. There are no majors at the university in these preprofessional areas because professional schools generally make no specification of majors. Students may major in any department but are encouraged to select majors and related preprofessional studies as outlined below.

Architecture

Kevin Burr, Advisor
230 SNLB
(801) 422-2023

Prearchitecture students have several options, depending on the intended future architectural degree. One approach is to study only a year or two at BYU before transferring to another institution to pursue a baccalaureate degree in architecture. In these instances, students should plan their period of study at BYU to include, as nearly as possible, course work that will transfer directly into the future architecture program.

Students who plan to obtain a graduate degree or certificate in architecture elsewhere following completion of an undergraduate degree at BYU are advised to consider a baccalaureate program in art, civil engineering, construction management, or industrial design. The choice depends on career and personal interests, academic preparation, and the requirements of the intended architectural program. Students pursing this approach should select their future program early and become familiar with all requirements, thereby avoiding potential disappointments.

Interested students should see the advisor in the School of Technology, 170 SNLB, (801) 422-1819.

Dentistry

Don Bloxham, PhD, Advisor
380 WIDB
(801) 422-3044

The acceptance rate of BYU applicants to dental school last year was considerably above the national average.

Both high grades and Dental Admission Test scores are helpful for admission to a good dental school. Minimum course requirements for most dental schools are: Engl 115, 316 (or 312 or 315), Math 110 or equivalent, Chem 105–107, 351–353, Phscs 105–108, Biol 120, 220, and PDBio 305 or 362. Biol 229, 329, and 429 are highly recommended. Consult dental school catalogs and Web pages for other prerequisites (380 WIDB). Biol 229 should be taken as soon as possible.

A few dental schools will accept BYU students after three years of predental education. A BS degree in biology from BYU is still possible after completion of the first year of dental school. Most students graduate from BYU before going to dental school. Check in 380 WIDB for details.

Students should plan major requirements with their departmental advisor and predental study with the predental advisor (380 WIDB). A very active Predental Club exists for the benefit of predental students.

Law

Eileen Crane, Prelaw Advisor
2590 WSC
(801) 422-2318

The study of law prepares a student to work in a variety of settings. Traditional private practice, business, government, consulting, public interest/nonprofit organizations, banking, and education are just some of the many types of settings in which lawyers use their legal education.

Law schools require a bachelor's degree but prefer candidates to have majors from across the curriculum. No admissions decisions are made based on majors or minors. Law schools are looking for students who have challenged themselves academically, in addition to participating in on- and off-campus activities, including employment and community service.

Students should select a major field of interest that may provide an alternative vocation should they choose not to attend law school. Because no particular prelaw major is best for all students, students should emphasize intellectually demanding courses in their major and other studies. These courses ought to include both analytical reasoning and abstract thinking skills, as well as courses that lead to well-developed reading and writing skills. These characteristics can be found in many intellectually stimulating disciplines, such as humanities, English language and literature, history, political science, philosophy, classics, economics, the biological and physical sciences, mathematics, and engineering. Business courses are also applicable to the practice of law.

For a personalized prelaw program, please contact the Prelaw Advisement Center. The prelaw advisor is prepared to help students (1) choose a major and academic courses, (2) create a study program for the LSAT, (3) provide data about law schools and student's likelihood of acceptance, (4) teach research skills for the law school application process, (5) find opportunities to serve in law-related community service settings, (6) meet legal professionals and other law school candidates, and (7) provide debt- and career-management skills training.

StDev 198R is a repeatable course with two sections. Section 1, Culture of Law, is a 1-credit, full-semester class that explores the professional world of lawyers. Section 400 is a 1-credit block class that explores constitutional, environmental, international, criminal, and family law and the U.S. Supreme Court in rotation. Speakers present on topics of interest in both courses, and students have an opportunity to do a variety of assignments in addition to writing law-related papers.

An annual student writing competition is sponsored by the BYU Prelaw Advisement Center. The best papers are published in the *BYU Prelaw Review*, the only undergraduate prelaw journal in the country. Two student organizations exist to facilitate student preparation for law school: the BYU Prelaw Student Association (PLSA) and the BYU Women's Prelaw Forum (WPLF).

Two annual events occur each year: the annual BYU Law Fair, held each fall semester, and the annual Financial Aid Conference, held each winter semester. Students can find out more about activities and events sponsored by the Prelaw Advisement Center by creating a file at the center and by looking on the Web at *www.byu.edu/ccc/prelaw*

Management

Ned C. Hill, Dean
730 TNRB
(801) 422-4122

Advisors:
MAcc Program Director, Boyd Randall, 540 TNRB, (801) 422-2314
MBA Program Director, Henry J. Eyring, 640 TNRB, (801) 422-2418
MISM Program Director, Marshall Romney, 510 TNRB, (801) 422-5704
MPA Program Director, Robert Parsons, 760 TNRB, (801) 422-4615
MOB Program Director, Kate L. Kirkham, 790 TNRB, (801) 422-6829

The programs in the Marriott School of Management are designed to prepare qualified students for rewarding careers in management and administration. Classes and study group activities stress the acquisition of professional managerial and leadership attributes that will enable students to obtain work in public, private, and not-for-profit organizations. High ethical values and behavior are emphasized.

Applicants to the programs are carefully evaluated in four areas: (1) previous academic performance; (2) completion of a bachelor's degree (except for students applying to the master of accountancy program); (3) test scores on the Graduate Management Admission Test; and (4) work experience, extracurricular activities, leadership potential, motivation, and maturity.

Marriott School of Management programs, leading to the master of business administration, master of public administration, and master of organizational behavior degrees, actively recruit good students from many undergraduate majors. Applicants to the master of accountancy program, who are required to have previous educational background in accounting, can be admitted as early as their senior year. Interested students should contact the specific program advisor to determine any prerequisites.

Medicine

Don Bloxham, PhD, Advisor
380 WIDB
(801) 422-3044

Students who wish to enter medical school should plan to graduate with a major that reflects interests and allows for an alternate career. Any major can serve as a premedical major. Come to 380 WIDB for help. Participation in the very active Premedical Club will also be beneficial.

Courses needed to fulfill the requirements of most medical schools are: Engl 115, 316 (or 312 or 315), Math 110 or equivalent, 111, Chem 105–107 (or 111, 112, 113), 351–353, Phscs 105–108 (or 121, 123), Biol 120, 220, and PDBio 305 or 362. Biol 139, 339, and 439 are highly recommended.

Plan major requirements with the departmental advisor and premedical study with the premedical advisor. The acceptance rate of BYU applicants to medical school has been above the national average, but acceptance is extremely competitive. The majority of students accepted to medical school have a GPA of 3.5 or higher in science classes.

Veterinary Medicine

Beverly L. Roeder, Advisor
386 WIDB
(801) 422-6873

Competition for freshman class spaces in veterinary school is keen, and students should expect to achieve above a 3.5 GPA. Many successful applicants have completed the bachelor's degree. Because course requirements differ with individual veterinary schools, students should familiarize themselves with entrance requirements for the schools to which they will apply.

Course work typically includes the following: English, two semesters; mathematics, one semester; chemistry, five semesters; microbiology with lab, one semester; biology, three semesters; physics, two semesters with lab; humanities, three semesters; social science, three semesters; and statistics, one semester. It is also important to have experience working with veterinarians and with animals.

Students are encouraged to incorporate the preveterinary curriculum into an academic program leading to a career alternative.

Dental Hygiene, Optometry, Pharmacy, Physician Assistant, and Podiatry

Don Bloxham, PhD, Advisor
380 WIDB
(801) 422-3044

Students who are interested in the above health professions may receive help in planning preprofessional course work and applying to the appropriate professional and graduate schools. Catalogs and other materials are available in the Health Professions Advisement Office.

Risk Management and Safety

J. Wesley Sherwood, Managing Director
TOMH
(801) 378-4468

The Risk Management and Safety Department seeks to find and eliminate or reduce risks associated with the operation of the university, its programs, activities, and other endeavors. Risk Management and Safety consults with individuals and departments to eliminate risks and procures insurance as necessary.

The department ensures proper safety programs and procedures, consults with campus personnel regarding safety concerns, and provides safety-related training. Training topics include hazardous communication (HazCom), radiation safety, driving courses (van, defensive, straight truck, CDL, and equipment), lab safety, fire safety, and CPR/first aid.

Compliance and training in federal, state, and local life safety, OSHA, and environmental regulations are also coordinated by the department, as are university insurance and workers' compensation programs for all full- and part-time employees.

The department manages the university emergency preparedness programs and coordinates with local and state emergency preparedness agencies to furnish information to all BYU personnel and students. This information includes CERT training, earthquake preparedness, building evacuation, and stake, ward, personal, and department preparedness.

Services for Single Parents

"The Resource Book for Successful Single Parent Students" is available at the Women's Services and Resources Office (1520 WSC). Individuals interested in networking with other single parents on campus can contact the Single Parents Association through LaNae Valentine at (801) 422-4877.

Signature Card

100 SASB
(801) 378-3866
E-mail: signature_card@byu.edu
Internet: http://www.byu.edu/stlife/sas/sc/

The Signature Card is a debit card, utilizing the university ID card. Nearly all retail outlets on campus accept the Signature Card, including Dining Services, vending machines, the Bookstore, WSC retail operations, copy centers, designated copy machines, ticket offices, and computer labs. Deposits, account monitoring, and balance inquiries may be made through RouteY by selecting the Signature Card and Meal Plans icon. Deposits may also be made at the Cashiers' Office and at most locations displaying the Signature Card logo.

Billing and Customer's Rights

This notice contains important information about the cardholder's rights and Student Auxiliary Services' (SAS) responsibilities under the Federal Electronic Funds Transfer Act. To preserve the rights under this act the cardholder must notify SAS of any clerk, billing, or statement error within sixty days of the date when the error appeared on the cardholder's statement. The cardholder may contact SAS in writing at any time or call/visit the SAS office during regular office hours from 8:00 a.m. to 5:00 p.m. Monday through Friday, (801) 378-3866, SAS Registry Office, 100 SASB, Provo UT, 84602.

Should the cardholder lose the ID card, he or she should call the Signature Card Office at 378-3866 or notify a Dining Services cashier immediately. A flag will be placed on the cardholder's account to protect it from unauthorized users. Failure to notify the Signature Card office within two business days may increase the cardholder's liability for unauthorized transactions.

The Signature Card account is not a demand deposit account like a savings or checking account. Money "deposited" in the cardholder's Signature Card account purchases points that may be redeemed for services at locations displaying the BYU Signature Card logo. Money may be withdrawn from the cardholder's account for emergency purposes only. A $10 processing fee is charged for this type of transaction.

There is a $10 processing fee to refund unused balances at the time when a Signature Card account is closed. Cardholder's are encouraged to spend the remaining balance in their account to avoid the check-processing fee.

Declining balance accounts that have remained inactive for a period of six months will be assessed a $5 service fee for each month they remain inactive. Inactive accounts without a balance will be closed. Patrons may contact Student Auxiliary Services to reopen a closed account.

At Dining Services' locations contracted meal plans are automatically assessed first. If sufficient funds are not available in a contracted meal plan to satisfy a transaction, the system will automatically cascade to the Signature Card account. Following automatic cascading if an account still does not have sufficient funds to complete the transaction, the remaining balance will need to be paid with cash.

Brigham Young University reserves the right to set the account balance to a negative amount when the account balance has insufficient funds to post an *off-line-card read* transaction.

Signature Card ID Center

Ann Carter
2310 WSC
(801) 422-3866

Hours:	Monday–Friday	7:00 a.m. to 8:00 p.m.
	Saturday	8:00 a.m. to 4:00 p.m.

The Signature Card Center makes available to every student a photo identification card with a magnetic strip. The identification card is in the process of being upgraded, and more information can be obtained from our Web site: www.byu.edu/signaturecard/id.

Dress and grooming standards as outlined by the university must be observed to obtain a photo identification card.

Ernest L. Wilkinson Student Center

Dean of Students
3500 WSC
(801) 422-4771

The Wilkinson Student Center is the community center of Brigham Young University. With a primary focus on student services, it enriches the quality of university community life for faculty, staff, alumni, and guests. The WSC houses organizations that enhance student development and personal growth, and it provides a place for building character, strengthening spirit, and enlarging intellect, which lead students to lifelong learning and service. It also provides essential services and conveniences for members of the university community and creates an environment for formal and informal social interaction. The Wilkinson Student Center celebrates traditions, fosters the "Spirit of the Y," and cultivates an enduring sense of belonging to the university. Under the direction of the dean of students, the center offers a variety of programs, activities, services, and facilities that, when taken together, bless and strengthen lives.

The WSC is open on the following schedule:

Monday–Thursday	6:00 a.m. to 11:00 p.m.
Friday	6:00 a.m. to midnight
Saturday	6:00 a.m. to 11:30 p.m.
Sunday	6:00 a.m. to 10:00 p.m.

First Floor

Businesses: Cougar Creations (1010) (copy center), Barbershop (1030), Campus Craft and Floral (1021), Games Center (1171), Outdoors Unlimited (1151) (rental, sales, repairs, and programs), and the Post Office (1131).

Services: Computer Lab (1111), Multicultural Student Services (1320), International Office (1351), Women's Services and Resources (1520), University Accessibility Center and Counseling and Career Center (1500–1520), custodial offices and supply area (1086), Lost and Found (1086), and the EMT's office. Two lounges and a vending area are also on this floor.

Second Floor

Businesses: Jamba Juice (2040), and the Cougareat.

Services: Memorial Hall, Varsity Theatre (2030), Signature Card and ID Center (2310), Information Center, Dining Services, and Off-Campus Housing (2170), Student Employment Offices (2024), and the Jacobsen Center for Service and Learning main office (2010) and its Involvement Center (2330). Counseling and Career Center, which includes: Career Placement Services (2410), University Advisement and Academic Support (2500), and Career and Learning Information (2590).

Rooms Available to Rent: The Terrace, Garden Court, east and main ballrooms, east lounge, 2142, and 2152.

Third Floor

Services: Dean's Office (3500), Student Leadership Offices (3400), Campus Scheduling and Business Support Offices (3326), Guest Services (3326B), Student Life Computer Support (3371), and Catering Offices (3243 and 3245).

Rooms Available to Rent: Rooms 3211 to 3290 (and 3380). (Note: Rooms 3260 to 3264 are entrances to the President's Room and are only rented for special events.

Fourth Floor

Services: Faculty Center (4450), Student Honor Association (4414), and Honor Code Office (4440).

Fifth Floor

Services: NEWSNET (student media organization), *Daily Universe* (BYU's student newspaper), and KBYU News.

Sixth Floor

Businesses: Skyroom Restaurant.

Information Center

Main Floor WSC
(801) 422-4313

The Information Center answers questions for hundreds of people each day. It has current pamphlets, directories, catalogs, class schedules, bus schedules, and other informational packets. Fall/Winter hours are Monday through Friday from 8 a.m. to 8 p.m. and Saturday from 9 a.m. to 5 p.m. Spring/Summer hours are Monday through Friday from 9 a.m. to 6 p.m. and Saturday from 9 a.m. to 5 p.m. It also serves as an outlet for ticket sales for various campus activities.

Lost and Found

First Floor, WSC
(801) 422-3024

The Lost and Found serves both those who have lost items of value and those who find them. The university strongly urges students and others to put their names and other personal information on their possessions and encourages everybody to turn found items in to the Lost and Found immediately.

Approximately 60 percent of the items turned in to Lost and Found are quickly returned to their owners. All unclaimed items are held for two months then stored and eventually sold at a yearly sale or sent to Deseret Industries.

Hours are from 9 a.m. to 5:30 p.m. Monday through Friday and from 9 a.m. to 1 p.m. Saturday.

BYU Student Service Association (BYUSA)

Third Floor, WSC
(801) 422-3901

The mission of the BYU Student Service Association is to strengthen students in their social relationships, civic duty, and service to humankind. Through student leadership the university community works together to achieve our goal that all who "enter to learn" will be prepared by training and experience to "go forth to serve." BYUSA houses the Student Advisory Council, which serves as a resource to the university administration regarding students' concerns.

Any student who wants to serve as a volunteer in community service programming or campus activities, in a campus club, on the Homecoming committee, or with programs such as Y Days is invited to become involved.

Ideas for making our university community a better place to learn and to live are also warmly accepted. Students may either come to the Involvement Office or call. There is a place for everyone in the BYU Student Service Association.

Guest Services

Third Floor, WSC
(801) 422-5672

The mission of Guest Services is to provide customer service at dances and events being held in the Wilkinson Student Center. This includes building and customer safety and liability. The Guest Service staff includes the after-hours building coordinators, events staff, and student assistants. Responsibilities for each area include safety, dress and grooming standards, crowd control, admission, ticket sales, hosting VIPs, and shuttle transportation.

Employment Services

Student Employment Office

2024 WSC
(801) 422-3561
E-mail: student_hire@byu.edu

The Student Employment Office is located on the main floor of the Wilkinson Student Center. It exists to provide quality service to BYU students and departments. Its primary purpose is to assist students in finding jobs.

Finding a job depends on class schedule, skills, experience, and willingness to accept reasonable employment. It is best if students can arrange their schedule to have a four-hour block available at the same time each day. Some of the more common work shifts are:

4:00 a.m.–8:00 a.m.
8:00 a.m.–Noon
9:00 a.m.–1:00 p.m.
1:00 p.m.–5:00 p.m.

There are two ways to search for employment on campus. Students can search for a job through the Internet site Millennium at *http://www.byu.edu/hr/ses/* or they can stop by Student Employment Services at 2024 WSC and look on the job list that is printed and posted daily. For many jobs, students can contact the employer directly. If the position requires a screening interview, students are invited to stop by the office Monday through Friday between 8 a.m. and 5 p.m. No appointment is necessary. After being hired, students need to stop back by the office with their Employment Action Form (hire slip) and complete the new-hire paperwork.

Most jobs on campus are listed through the Student Employment Office. However, some academic departments select from their own students for reading, grading, and research assistant positions. The Missionary Training Center (MTC) accepts applications to fill teaching positions directly from returned missionaries or those who have native foreign language skills. Applications should be submitted online at *http://mtc.byu.edu*.

The Office Skills Evaluation (OSE) test is offered in the Student Employment Office from 8:00 a.m. to 3:30 p.m. Monday through Friday. This test is required for most clerical jobs. The OSE offers tests in three areas: typing, filing, and data entry. Students may take any or all of these tests. Math, spelling, and ten-key tests may be taken as requested by the department.

U.S. undergraduate students are required to carry and maintain a minimum of 9 credit hours per semester during fall and winter. International undergraduate students are required to take a minimum of 12 credit hours per semester during fall and winter. U.S. graduate students are required to carry 2 credit hours per semester and be accepted into a graduate program. International graduate students are required to take 9 credit hours per semester and be accepted into a graduate program.

Certain governmental restrictions are placed on students from foreign countries. All international students are required to contact International Services, 1351 WSC, to determine their employment status prior to going to the Student Employment Office.

Federal immigration regulations require everyone hired in the U.S. to prove work eligibility and establish identity. To be employed on campus all students must provide a U.S. social security card. U.S. citizens may either use a passport to establish identity and prove employment eligibility or a combination of two forms of acceptable ID, such as a social security card to prove work eligibility and a current BYU identification card or driver's license to establish identity. International students should bring to Student Employment acceptable ID that includes an I-20 and a current passport with an I-94 attached.

Because of intense competition for on-campus jobs, students are encouraged to search for one prior to the beginning of the semester.

Direct deposit of a student's payroll check is mandatory for each student. Log in to RouteY and click the Human Resources Payroll System home page to set up this process.

Students hired for on-campus jobs through Student Employment agree to observe the BYU Honor Code and the Dress and Grooming Standards.

Student Health Center

2300 SHC, (801) 378-2771

Rulon J. Barlow, Administrative Director
Robert P. Romney, M.D., Medical Director
Gary B. Brimley, Assistant Director

Student health services are available at the Student Health Center for all students, spouses, and dependents of students at rates lower than those the community offers. Any student may receive services at the Health Center regardless of his or her insurance policy, although students can receive health care at an even greater discount by utilizing the student health insurance plan. The Student Health Center is not a Medicare, Medicaid, or TriCare/Champus provider.

Health services are available from 8:00 a.m. until 6:00 p.m. Monday through Friday and from 8:00 a.m. until noon on Saturday. The Health Center is closed on Sunday and on all BYU holidays. Students can make an appointment by calling (801) 378-2771.

Services available at the Health Center include:

1. Consultation with a physician or nurse practitioner
2. Immunizations
3. Pharmacy
4. Physical therapy
5. Laboratory services
6. X-ray services
7. Pediatrics
8. Urgent care
9. Consultation with specialists in ENT, ophthalmology, orthopedics, internal medicine, podiatry, psychology and psychiatry, surgery, rheumatology, gynecology, dietary and nutritional counseling, etc.

For more information contact the Student Health Center. The Student Health Center is bound by federal confidentiality laws. Personal information will not be released to a third party without written permission from the patient.

University Police, Parking, Traffic, and Security

The University Police Department is established for the benefit and protection of students, faculty, and staff. The department's state-certified police officers are entrusted with enforcing laws. Student security, traffic, and parking control employees are also utilized by the university to enforce campus rules and regulations.

All persons requiring emergency police assistance or fire or ambulance services should call 911. Non-emergency police assistance is available by calling (801) 422-2222 or by visiting the department at B-66 ASB.

Parking control is the responsibility of the University Police and the Parking and Traffic Division, which is located east of the Carillon Bell Tower at 700 East 1430 North. All BYU students must register their motor vehicles with the Parking and Traffic Division if they intend to park in student lots during restricted hours.

Automobile Registration

The Parking and Traffic Office hours are from 7:30 a.m. to 5:30 p.m. Monday through Thursday and from 7:30 a.m. to 5:00 p.m. Friday (and during spring and summer terms). Due to the new cashiering system on campus, the Traffic Office may close the lobby line prior to closing the office. This is so the office can comply with the campus closeout schedule. To obtain a parking permit, the following must be presented:

1. Current state vehicle registration certificate
2. Proof of emissions compliance. Vehicles registered in areas that do not have an emissions program meeting Utah County requirements will need to pass an emissions test. Contact the Traffic Office if you are unsure about your emissions requirements, (801) 378-3906.
3. The appropriate fee
4. University identification card

Parking Permits

Zone G
Graduate students (valid in G and Y lots) $80
Zone Y
Students living off campus (valid in Y lots) 60

Note: Those living in family or foreign language housing are required to display a Y permit designated for those areas.

Zone Y/C
Student motorcycle
(valid in student motorcycle areas) 15
Zone C
On-campus single housing (valid in C lots) 60

Faculty and staff employees with out-of-state plates must license their vehicles with the state of Utah and clear them for tax payment before they can receive their parking permits.

Replacement permits will only be issued when the current valid permit is returned, regardless of car accident, windshield replacement, or sale of vehicle.

Bicycle Registration

All bicycles operated or parked on campus must be licensed with a Utah County municipality. Provo city licenses are available at the Traffic Office for a fee of $1.

Bicyclists must:

1. Always park bicycles in racks.
2. Never ride on sidewalks during class breaks.
3. Yield to pedestrians.
4. Obey *all* traffic rules.

Bicycles not parked in racks will be impounded. BYU will not be responsible for cut locks, chains, or cables. Locks, chains, or cables may be cut only when uniformed police or traffic personnel are present.

Other Regulations and Information

Owners/operators of motor vehicles operated in Utah County should be prepared to pass Utah County Vehicle Emissions Inspection Maintenance requirements.

Neighborhoods adjoining campus are sometimes inundated with parked vehicles. Students are encouraged to obtain BYU parking permits and to park in university parking lots authorized by the permit.

Traffic regulation information may be obtained from the Parking and Traffic Services Office. It is the responsibility of all students, faculty, and staff members to obey all traffic rules and regulations.

Questions may be directed to Traffic Office personnel at (801) 378-3906.

Veterans Support

B-150 ASB
(801) 422-2768
E-mail: veterans@byu.edu
Internet: http://ar.byu.edu/dept_records/registrarweb/veterans_support.html

The Veterans Support Office certifies the enrollment of eligible veterans or their dependents for educational benefits from the U.S. Department of Veterans Affairs (VA). Information and help in applying for these benefits are available from this office.

Accreditation and Affiliations

Brigham Young University is fully accredited by the Northwest Association of Schools and Colleges. In addition, many professional programs of the university are reviewed, evaluated, and accredited by national and state associations and boards.

The following organizations have given full accreditation to related programs at the university:

Accreditation Board for Engineering and Technology, Inc. (ABET) for the four-year programs leading to bachelor of science degrees in chemical engineering, civil engineering, computer engineering, electrical engineering, mechanical engineering
Accrediting Council for Education in Journalism and Mass Communications
American Assembly of Collegiate Schools of Business
American Association for Marriage and Family Therapy
American Association of Museums
American Bar Association
American Council for Construction Education
American Dietetic Association
American Institute of Graphic Arts
American Political Science Association
American Psychological Association
American Research Center in Egypt
American Society of Mammalogists
American Speech, Language, Hearing Association
American Veterinary Medical Association
Association of Systematics Collections
Commission on Collegiate Nursing Education
Commission on Accreditation of Allied Health Education Programs (CAAHEP)
Computing Accreditation Comission of ABET
Council of Baccalaureate and Higher Degree Programs of the National League for Nursing
Council on Accreditation, National Recreation and Park Association/American Association of Leisure and Recreation
Council on Social Work Education
Joint Review Committee on Educational Programs in Athletic Training
National Accrediting Agency for Clinical Laboratory Sciences
National Association for the Education of Young Children
National Association of Schools of Art and Design
National Association of Schools of Dance
National Association of Schools of Music
National Association of Schools of Public Affairs and Administration
National Association of Schools of Theatre
National Association of Sport and Physical Education
National Association of State Directors of Teacher Education and Certification
National Council for Accreditation of Teacher Education
National Environmental Health Association
National League for Nursing Accrediting Commission
National Recreation and Parks Association
Northwest Association of Schools and Colleges
Northwest Association of Secondary and Higher Schools
Pacific Northwest Newspaper Association
Public Relations Society of America
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (TAC/ABET) for the four-year program leading to a bachelor of science degree in manufacturing engineering technology
Utah State Bar Association
Utah State Board of Nursing
Utah State Department of Education
Utah State Department of Public Instruction in cooperation with the United States Office of Education for the training of vocational home economics teachers.

Brigham Young University is affiliated with the following educational and professional associations:

Academia de la Investigacion Cientifica
Academy for Health Services Marketing
Academy of Financial Services
Academy of International Business
Academy of Management
Academy of Marketing Science
Acoustical Society of America
Actors Equity Association
Administrative Management Society
Alpha Kappa Delta
American Academy of Advertising
American Academy of Management
American Academy of Nurse Practitioners
American Academy of Religion
American Accounting Association
American Advertising Association
American Advertising Federation
American Agricultural Economics Association
American Alliance for Health, Physical Education, Recreation, and Dance
American Alliance for Theatre and Education (AATE)
American Anthropological Association
American-Arab Affairs Council
American Association for Advances in Health Care Research
American Association for Artificial Intelligence
American Association for Counseling and Development
American Association for Italian Studies
American Association for Leisure and Recreation
American Association for the Advancement of Science
American Association for the Advancement of Slavic Studies
American Association of Adult and Continuing Education
American Association of Bovine Practitioners
American Association of Colleges
American Association of Colleges for Teacher Education
American Association of Colleges of Nursing
American Association of Collegiate Registrars and Admissions Officers
American Association of Equine Practitioners
American Association of Family and Consumer Sciences
American Association of Higher Education
American Association of Investments
American Association of Petroleum Geologists
American Association of Physics Teachers
American Association of Presidents of Independent Colleges and Universities
American Association of Real Estate Appraisers
American Association of School Administrators
American Association of Small Ruminant Practitioners
American Association of Teachers of Arabic
American Association of Teachers of French
American Association of Teachers of German
American Association of Teachers of Italian
American Association of Teachers of Slavic and East European Languages
American Association of Teachers of Spanish and Portuguese
American Association of University Women

American Astronomical Society
American Bach Society
American Business Law Association
American Chemical Society
American Choral Directors Association
American College of Health Administrators
American College of Health Care Executives
American College of Nutrition
American College of Sports Medicine
American College Personnel Association
American College Theatre Association (ACTA)
American Collegiate Retailing
American Comparative Literature Association
American Conference on Romanticism
American Council for the Teaching of Foreign Languages (ACTFL)
American Council of Teachers of Russian
American Council on Consumer Interests
American Council on Education
American Crystallographic Association
American Dairy Science Association
American DDR Studies Association
American Diabetes Association
American Economics Association
American Educational Research Association
American Federation of Musicians
American Federation of Television and Radio Employees (AFTRA)
American Film Institute
American Finance Association
American Geophysical Union
American Guild of Musical Artists
American Guild of Organists
American Historical Association
American Hospital Association
American Institute for Maghribi Studies
American Institute of Aeronautics and Astronautics
American Institute of Certified Public Accountants
American Institute of Chemical Engineers
American Institute of Design and Drafting
American Institute of Organ Builders
American Institute of Physics
American Institute of Plant Engineers
American Journalism Historians Association
American Library Association
American Liszt Society
American Management Association
American Marketing Association
American Mathematical Society
American Meat Science Association
American Museum Association
American Musical Instrument Society
American Musicological Society
American Newspaper Publishers Association
American Nurses Association
American Oil Chemists' Society
American Philological Association
American Philosophical Association
American Physical Society
American Physiological Society
American Popular Culture Association
American Production and Inventory Control Society
American Public Radio
American Public Television Association
American Risk and Insurance Association
American Schools of Construction
American Schools of Oriental Research
American Society for Biochemistry and Molecular Biology
American Society for Clinical Nutrition
American Society for Engineering Education
American Society for Engineering Management
American Society for Horticultural Science
American Society for Microbiology
American Society for Nutritional Sciences
American Society for Public Administration
American Society for Quality
American Society for Theatre Research (ASTR)
American Society of Agronomy
American Society of Animal Science
American Society of Biochemistry and Molecular Biology
American Society of Civil Engineers
American Society of Composers, Authors, and Publishers
American Society of Eighteenth-Century Studies
American Society of Interior Design
American Society of Mammalogists
American Society of Mechanical Engineers
American Society of Public Accountants
American Society of Training and Development
American Sociological Association
American Statistical Association
American String Teachers Association
American Taxation Association
American Translators Association
American Viola d'amore Society
American Viola Society
American Vocational Association
American Women in Radio and Television
Archaeological Conservancy, The
Asian Pacific Communication Association
Associated Builders and Contractors
Associated General Contractors of America
Associated Neuroscience Departments and Programs
Associated Schools of Construction
Associated Writing Programs
Association for Advances in Health Care Research
Association for Asian Studies
Association for Business Communication
Association for Childhood Education International
Association for Comparative Economic Studies
Association for Comparative Studies
Association for Computational Linguistics
Association for Computers and the Humanities
Association for Computers in Education
Association for Computing Machinery
Association for Consumer Research
Association for Counselor Education and Supervision
Association for Education in Journalism and Mass Communications
Association for Educational Communications and Technology
Association for Library and Information Science Education
Association for Literary and Linguistic Computing
Association for Manufacturing Excellence
Association for Mormon Counselors and Psychotherapists
Association for Mormon Letters
Association for Practical and Professional Ethics
Association for Public Policy Analysis and Management
Association for Schools of Journalism and Mass Communication
Association for Society of Newspaper Editors
Association for Student Judicial Affairs
Association for Supervision, Training, and Development
Association for Systems Management
Association for the Advancement of Computing in Education
Association for Theatre in Higher Education (ATHE)
Association of American Colleges
Association of American Law Schools
Association of American University Presses
Association of Asian Studies
Association of Baccalaureate Social Work Programs
Association of College Unions—International
Association of Continuing Higher Education
Association of Departments of English
Association of Departments of Foreign Languages
Association of General Contractors
Association of Higher Education Facilities Officers
Association of Interior Designers
Association of Performing Arts Presenters

Association of Professional Genealogists
Association of Psychology Postdoctoral and Internship Centers
Association of Research Libraries
Association of Supervision and Curriculum Development
Association of Teacher Educators
Association of Teachers of Chinese
Association of Teachers of Japanese
Association of the United States Army
Association of University and College Counseling Center Directors (AUCCCD)
Association of Western Universities
Association of Women in Radio and Television
Astronomical Society of the Pacific
Audio Engineering Society
Australia/New Zealand Communication Association
Beta Alpha Psi
Bibliographic Center for Research, Rocky Mountain Region
Biophysical Society
Broadcast Education Association
Broadcast Music Inc.
Cantonese Language Association
Catgut Acoustical Society
Center for Applied Linguistics (CAL)
Center for Arabic Study Abroad
Center for International Scholarly Exchange (CISE)
Center for Research Libraries
Central Education Network
Central Opera Service
Changes in Liberal Education
Classical Association of the Middle West and South
Clay Minerals Society
Coalition for Networked Information
College and University Machine Records Conference
College and University Personnel Association
College Art Association
College Band Directors National Association
College Entrance Examination Board
College Media Advisors
College Music Society
College Reading Association
College Reading and Learning Association
Computer-Assisted Language Instruction Consortium (CALICO)
Computer Science Accreditation Commission
Computing Research Association
Confederation of International Organizers of Folkdance Festivals
Conference on Christianity and Literature
Conference on College Composition and Communication
Congress on Research in Dance
Consumer Research Association
Co–op America
Correctional Educational Association
Costume Society of Great Britain
Council for European Studies
Council for Programs in Technical and Scientific Communication
Council for the Advancement and Support of Education
Council for Undergraduate Research
Council for Writing Program Administrators
Council of Editors of Learned Journals
Council of Graduate Departments of Psychology
Council of Graduate Schools in the United States
Council on Library and Information Resources
Crop Science Society of America
Dance and the Child International
Dante Society of America
Data Processing Management Association
Decision Sciences Institute
Econometric Society
EDP Auditors Association
Educational Films Library Association
Educational Society for Resource Management
Educational Theatre Association (ETA)
Endocrine Society
Environmental Historians Association
Eta Kappa Nu
Eta Sigma Gamma
Eugene O'Neill Society of America
European Accounting Association
European Association of Exploration Geophysicists
European Physical Society
European Trade Association
Executive MBA Council
Federation of American Societies for Experimental Biology
Federation of Schools of Accountancy
Financial Management Association
Friends of the Permian
Geological Society of America
German Studies Association
Goal/QPC, Inc.
Goethe Institute (U.S. and West Germany)
Golden Key National Honor Society
Graduate Management Admissions Council: Career Services Council
Greater Western Library Alliance
Guild of Carillonneurs in North America
Health Care Financial Association
Ibsen Society of America
Imperial Society of Dance
Industrial Relations Research Association
Institute of Business Designers
Institute of Electrical and Electronic Engineers
Institute of Food Technologists
Institute of Industrial Engineers
Institute of Internal Auditors
Institute of International Education (IIE)
Institute of Management Accountants
Institute of Management Science/Operations Research Society of America
Institute of Management Sciences
Institute of Noise Control Engineering
Interior Design Education Council
International Arts Medicine Association
International Association for Dance Medicine and Science
International Association for Financial Planning
International Association for Korean Language Educators (IAKLE)
International Association for Mass Communication Research
International Association for the Study of Popular Music
International Association of Jazz Educators
International Association of Learning Laboratories
International Association of Scholarly Publishers
International Association of Theatre for Children and Young People (ASSITEJ/USA)
International Association of Theatrical and Screen Employees (IATSE)
International City Management Association
International Communication Association
International Comparative Literature Association
International Conference for Computers in the Humanities
International Congress of Meat Science and Technology
International Congress of University Adult Education
International Documentary Association
International Double Reed Society
International Facility Management Association
International Federation for Theatre Research (IFTR)
International Horn Society
International Institute of Forecasters
International Meat Processors
International Musicological Society
International Newspaper Financial Executives
International Organization of Scenographers, Architects, and Technicians of Theatre (OISTAT)
International Personnel Management Associations
International Public Relations Association
International Reading Association
International Schools of Theatre
International Society for Music in Medicine
International Society on General Relativity and Gravitation

International Studies Association
International Technology Education Association
International Viola Society
Joint National Committee for Languages
Kappa Tau Alpha
Kennedy Center American College Theatre Festival (KC/ACTF)
Linguistic Society of America
Literary Managers and Dramaturgs of the Americas
Marketing Science Institute
Master Piano Technicians of America, Inc.
Mathematical Association of America
Mathematical Sciences Research Institute
McBride Round Table
Medical Group Management Association
Medieval Academy of America
Microscopy Society of America
Mid-America Theatre Association
Middle East Studies Association of North America
Midwest Association of Colleges and Employers
Mineralogical Society of America
Modern Language Association
Mormon History Association
Mountain Plains Adult Education Association
Mountain Plains Library Association
Mu Sigma Rho
Music and Entertainment Industry Educators' Association
Music Educators National Conference
Music Library Association
Music Teachers National Association
National Academic Advising Association
National Academy of Songwriters
National Academy of Television Arts and Sciences (EMMY)
National Alliance for Musical Theatre
National Art Education Association
National Association for Campus Activities
National Association for Humanities Education
National Association for Institutional Research
National Association for Internships and Experiential Education
National Association for Music Therapy
National Association for Physical Education in Higher Education
National Association for the Education of Young Children
National Association of Broadcasters
National Association of Business Economists
National Association of Certified Fraud Examiners
National Association of College Wind and Percussion Instructors
National Association of Colleges and Employers
National Association of Elementary Principals
National Association of Foreign Student Affairs
National Association of Geology Teachers
National Association of Home Builders
National Association of Independent Colleges and Universities
National Association of Purchasing Management
National Association of Secondary School Principals
National Association of Student Financial Aid Administrators
National Association of Student Personnel Administrators
National Association of Teachers
National Association of Teachers of Singing
National Association of Television Programming Executives
National Athletic Trainers Association
National Band Association
National Business Educators Association
National Center for Employee Ownership
National Collegiate Honors Council
National Commission of Accrediting
National Commission on Cooperative Education
National Communication Association
National Computer Graphics Association
National Council of Teachers of English
National Council of Teachers of Mathematics
National Council of University Research Administrators
National Council on Family Relations
National Dance Association
National Dance Council of America
National Dance Education Organization
National Drama Conference
National Financial Association
National Flute Association
National Folk Organization of the United States of America
National Intramural Recreational Sports Association
National League for Nursing
National Network of Graduate Business School Women
National Opera Association
National Organization on Legal Problems in Education
National Orientation Directors Association
National Press Women
National Public Radio
National Reading Conference
National Recreation and Parks Association
National School Boards Association
National University Continuing Education Association
National Writing Centers Association
Network of Quality and Productivity Center
New York Academy of Sciences
North American Case Research Association
North American Steel Band Association
North American Veterinary Technology Association
Northern Rocky Mountain Educational Research Association
Office Systems Research Association
Online Computer Library Center, Inc.
Operations Management Association
Operations Research Society of America
Optical Society of America
Organization of American Historians
Organization of American Kodaly Educators
Organizational Development Institute
Pacific Islands News Association
Pacific Mountain Network
Pacific Northwest Newspaper Association
Paleontological Society
Pander Society, (Hans Christian)
Percussive Arts Society
Phi Delta Kappa
Phi Eta Sigma
Phi Kappa Phi
Phi Tau Sigma
Pi Delta Phi
Pi Kappa Lambda
Pi Mu Epsilon
Pi Sigma Alpha
Piano Technicians Guild, Inc.
Playwrights Circle
Poultry Science Association
Production and Operations Management Society
Professional and Organizational Development Network in Higher Education
Psi Chi
Psychology of Mathematics Education
Public Broadcasting Service
Public Radio News Directors Association
Public Radio Program Directors Association
Public Relations Society of America
Public Relations Student Society of America
Public Telecommunications Financial Managers Association (PTFMA)
Puppeteers of America
Radio Television News Directors Association
Renaissance Society of America
Research Libraries Group
Research Workers in Animal Disease
Rhetoric Society of America
Rocky Mountain Association of Colleges and Employers
Rocky Mountain Collegiate Media Association
Rocky Mountain Mathematics Consortium
Rocky Mountain Medieval and Renaissance Association
Rocky Mountain Modern Language Association
Rocky Mountain Public Radio

Rocky Mountain Theatre Association (RMTA)
Royal Asiatic Society—Korean Branch
Rural Sociological Society
Scholarly Publishing and Academic Resources Coalition
Scientific Research Society, Sigma Xi
Screen Actors Guild (SAG)
Sigma Alpha Iota
Sigma Pi Sigma
Sigma Theta Tau
Sigma Xi
Small Business Institute Directors Association
Society for American Music
Society for Applied Learning Technologies
Society for Applied Sociology
Society for Cinema Studies (SCS)
Society for College and University Planners
Society for Computer Simulation
Society for Consumer Psychology
Society for Eighteenth-Century Music
Society for Human Resource Management
Society for Industrial and Applied Mathematics (SIAM)
Society for International Development
Society for Manufacturing Engineers
Society for Music Theory
Society for Phenomenology and Media Studies
Society for Research in Child Development
Society for Scholarly Publishing
Society for Technical Communication
Society for the Advancement of Materials and Process Engineering
Society for the Advancement of Scandinavian Studies
Society of American Military Engineers
Society of Automotive Engineers
Society of Biblical Literature
Society of Broadcast Engineers
Society of Core Analysts
Society of Dance History Scholars
Society of Economic Paleontologists and Mineralogists
Society of Engineering and Mineral Exploration Geophysicists
Society of Environmental Journalists
Society of Exploration Geophysicists
Society of Illustrators—New York Institutional Member
Society of Manufacturing Engineers
Society of Motion Picture and TV Engineers
Society of Newspaper Design
Society of Physics Students
Society of Professional Audio Recording Studios
Society of Professional Journalists
Society of Research Administrators
Society of Stage Directors and Choreographers
Society of Vertebrate Paleontology
Society of Women Engineers
Soil and Water Conservation Society
Soil Science Society of America
Sonneck Society for American Music
Southwest Association of Colleges and Employers
Southwest Conference on Language Teaching
Southwest District American Alliance for Health, Physical Education, Recreation, and Dance
Southwest Education Council for Journalism and Mass Communication
Strategic Management Society
Suburban Newspapers Association
Systematics Association
Tau Alphi Pi
Tau Beta Pi
Teachers of English to Speakers of Other Languages (TESOL)
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET)
Theta Alpha Phi
Treasury Management Association
United Scenic Artists (USAA)
United States Association for Small Business and Entrepreneurship Group
United States Institute of Theatre Technology (USITT)
University Film and Video Association (UFVA)
UNIX and Advanced Computing Systems Professional and Technical Association
Utah Academic Libraries Consortium
Utah Academy of Sciences, Arts, and Letters
Utah Advertising Federation
Utah Association for Health, Physical Education, Recreation, and Dance
Utah Association of Certified Public Accountants
Utah Association of Sciences, Arts, and Letters
Utah Broadcasters Association
Utah Flute Association
Utah Foreign Language Association
Utah Genealogical Association
Utah Geological Association
Utah Library Association
Utah Museums Association
Utah Music Teachers Association
Utah Press Association
Utah Professionals of Student Activities
Utah Recreation and Park Association
Utah Recreation Therapy Association
Utah State Office of Education
Utah Theatre Association (UTA)
Vocational Industrial Clubs of America
West Coast Journalism Historians
Western Academy of Management
Western Alliance of Arts Administrators
Western Agricultural Economics Association
Western American Literature Association
Western Association of Colleges and Employers
Western Association of Cooperative and Work Experience Educators
Western Association of Graduate Schools
Western Association of Schools and Colleges
Western College Association
Western College Physical Education Society
Western Economics Association
Western Finance Association
Western Governmental Research Association
Western History Association
Western Institute of Nursing
Western Interstate Commission on Higher Education
Western Marketing Educators Association
Western Political Science Association
Western Region Collegiate Honors Council
Western Risk and Insurance Association
Western Society for Research in Nursing
Westfield Center for Early Keyboard Studies
Women in Communications
Women in Management
World Association for Case Method Research and Application
World Future Society
World Poultry Science
World Rabbit Science Association
World Trade Association

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Associate Dean..... Sara Lee Gibb

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Dean..... Van C. Gessel
Associate Dean ..... Melvin J. Luthy
Associate Dean ..... David B. Paxman
Associate Dean..... John R. Rosenberg

Law School
Dean..... H. Reese Hansen
Associate Dean ..... J. Clifton Fleming
Associate Dean ..... Constance K. Lundberg
Associate Dean ..... Kathy D. Pullins
Associate Dean..... Kevin J. Worthen
Assistant Dean..... Carl Hernandez
Assistant Dean..... Mary Hoagland

Marriott School of Management
Dean..... Ned C. Hill
Associate Dean ..... W. Steve Albrecht
Associate Dean ..... Lee T. Perry

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- Dean ..... Robert S. Patterson
  - Associate Dean ..... Marie Tuttle
  - Associate Dean ..... K. Richard Young

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  - Associate Dean ..... Barbara Mandleco
  - Associate Dean ..... Rae Jeanne Memmott
  - Associate Dean ..... Mary Williams

Physical and Mathematical Sciences
- Dean ..... Earl M. Woolley
  - Associate Dean ..... G. Rex Bryce
  - Associate Dean ..... Dana T. Griffen

Religious Education
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  - Associate Dean ..... Matthew O. Richardson

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  - Associate University Librarian ..... H. Julene Butler
  - Assistant University Librarian ..... Scott H. Duvall
  - Assistant University Librarian ..... Robert G. Murdoch

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  - Associate Dean ..... Norman B. Finlinson
  - Associate Dean ..... Gary L. Kramer
    - Academic Advisement/Graduation Evaluation Director ..... Raylene J. Hadley
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    - Admissions Operations Director ..... Eric S. Myers
    - Financial Aid Director ..... Paul Conrad
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Peer, Larry H., *Humanities, Classics, and Comparative Literature*

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Roeder, Beverly L., *Integrative Biology*

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College of Engineering and Technology

Strong, A. Brent, *School of Technology*

College of Family, Home, and Social Sciences

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Scoresby, A. Lynn, *Family Life*
Taylor, Stanley A., *Political Science*

College of Fine Arts and Communications

Powley, E. Harrison III, *Music*

College of Humanities

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Klein, Ilona, *French and Italian*
Parry, Joseph D., *Humanities, Classics, and Comparative Literature*
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Duvall, Scott H.

Harold B. Lee Library Personnel

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Wright, John (1992) BS, MLS, Brigham Young U., 1987, 1989.

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Assistant Librarians

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Dick, Gerald K. (1970) BA, MMu, MLS, Brigham Young U., 1962, 1967, 1968.
Ellenburg, Doris (1986) BA, MA, California State U., Los Angeles, 1974, 1975; MLS, Brigham Young U., 1980.
Flake, Chad J. (1953) BA, Brigham Young U., 1953; MA, U. of Denver, 1955.
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Heath, Harvard (1984) BA, PhD, Brigham Young U., 1977, 1990.
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Jenson, Janet (1976) BA, MA, Brigham Young U., 1958, 1960; MS, Columbia U., 1966.
Jordan, K. Paul (1964) BS, Brigham Young U., 1964; MLS, U. of Southern California, 1969.
Lamson, Merle E. (1961) AS, Yakima Valley Coll., 1953; BS, Brigham Young U., 1955; MLS, Columbia U., 1960; PhD, U. of Utah, 1975.
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Miner, Afton McGrath (1972) BA, Arizona State U., 1954; MLS, U. of California, Berkeley, 1963.
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Norton, Beverly (1986) BA, MLS, Brigham Young U., 1984, 1985.
Ostler, Larry J. (1984) BA, MLS, Brigham Young U., 1966, 1971; EdD, Nova U., 1985.
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Richey, Melva (1985) BS, Utah State U., 1943; MLS, Brigham Young U., 1976.
Robertson, Russell C. (1973) BA, U. of California, Los Angeles, 1949; MLS, U. of Illinois, 1960; MEd, Brigham Young U., 1977.
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Smith, Carol T. (1949) BA, Brigham Young U., 1940; MS, U. of Southern California, 1962.
Smith, Nathan M.(1966) BS, Eastern Oregon State Coll., 1961; MS, Oregon State U., 1965; MLS, PhD, Brigham Young U., 1969, 1972.
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Webb, Beth R. (1966) BA, Brigham Young U., 1940; MA, U. of Denver, 1944.

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BRIGHAM YOUNG UNIVERSITY

CAMPUS MAP

Note: A large colored version of this map is available at the BYU Bookstore or can be seen at http://advance.byu.edu/map.

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81 Thomas House (Risk Management and Safety) (TOMH) F/8
82 Track and Field Complex D/7,8
83 University Parkway Center (UPC) B,C/6
84 University Press Building (UPB) H/5,6
85 Visitors Center (VCTR) E/12
86 Waite House (ISPART) (WAIH) G/13
87 Wells Building, Daniel H. (Air Force/Army Reserve) (ROTC) I/11
88 Widtsoe Building, John A. (W1DB) F,G/12
89 Wilkinson Student Center, Ernest L. (WSC) G,H/11
90 Wymount Terrace (WT) and Adm. Bldg. (W0AD) J,K,L/3,4,5,6,7
91 Wyview Park (WP) and Central Building (WPCB) A,B/2,3,4

GIFT SECTION SERIALS DEPT.
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